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## *Approach C*

# CHANGING CONSUMER PREFERENCES THROUGH PROMOTION AND ADVERTISING

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### GENERAL CONSIDERATIONS OF THE PROBLEM

This paper will evaluate the possibility of solving the income problem by changing the demand characteristics for agricultural products through promotion and advertising. By demand characteristics we mean the level and elasticities of the various demand curves. Promotion and advertising include the intensive activity of stimulating buyers' interest and making the sale as well as educational efforts.

#### **A. Size of the Job**

1. The imbalance between present production and consumption is 8 percent.<sup>1</sup>
2. The potential excess production flow by 1965 is about 15 percent annually. Total food consumption is expected to increase 16 percent between 1957 and 1965, while agriculture can easily increase its output 20 to 25 percent.<sup>2</sup>
3. The present surplus is largely in wheat, cotton, rice, and feed grains.

#### **B. The Demand Situation**

Volume of farm products marketed has increased 50 percent since 1940. Most of the increase has been required for the increased population. However, some of this increase has been used to upgrade diets, i.e., more animal product consumption, less potatoes and cereal.<sup>3</sup> Pounds of food consumed per capita (about 1,500 pounds) has changed little during the last fifty years.<sup>4</sup>

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\*The other members of the work group who reviewed the preliminary draft and assisted in the development of the final report were: Lyle M. Bender (Chairman), George W. Campbell, Kenneth R. Farrell, Phillips Foster, and C. R. Keaton.

<sup>1</sup>Bonnen, James, "An Inventory of Supply of Farm Commodities and Capacity to Produce," National Farm Institute, 1958, p. 6.

<sup>2</sup>*Ibid.*

<sup>3</sup>Andrews, R. A., and Cochrane, Willard W., *Farm Business Notes*, March 1956.

<sup>4</sup>Kansas Agr. Expt. Sta. Cir. 353, p. 7.

Of the projected 16 percent increased consumption of food by 1965, 13 percent is for population increase and 3 percent is for upgrading of diets. Projected income increase per capita during the next ten years is 20 percent.

Consumer food expenditure patterns vary. During the 1930's consumers spent about 23 or 24 percent of their disposable income for food. During World War II this figure dropped to 20 percent due to price ceilings and higher incomes. Since World War II the percentage has risen as high as 26 percent. Average food expenditures increased about 18 percent per capita from 1942 to 1955 on a constant dollar basis.<sup>5</sup> Forty-five percent of this increase was explained by changes in the level and pattern of foods and services purchased, the rest by urbanization and higher incomes.

R. L. Kohls states that 25 cents of the consumer's income dollar in 1957 was spent for food and beverages, while only 7 to 8 cents of this dollar was paid to the farmer for raw food products.<sup>6</sup> Can advertising by farm groups increase this 7 to 8 cents portion? This increase is not likely to be achieved by giving consumers less processing or less services and conveniences with their food. Therefore, the increase must come from increasing the 25 cents food portion of the dollar. To do the latter we would have to persuade people to reduce their expenditures for clothing, automobiles, television sets, doctors, hairdressers, etc.

### **C. The Supply Situation**

In terms of the present projected supply and demand relationships, supplies will continue to outrun demand. The amount of the surplus will vary among the different agricultural products.<sup>7</sup>

## **ADVERTISING AS A TOOL FOR IMPROVING AGRICULTURE'S WELL-BEING**

### **A. Advertising Expenditures Are Already Heavy**

Andrews and Cochrane estimated an advertising bill (not total sales promotion) above 1.4 billion dollars in 1954 for food and food items. This was 2.2 cents of the consumer's food dollar. Estimated advertising by marketing levels was as follows:<sup>8</sup>

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<sup>5</sup>Hoobler, S. Q., "Opportunities and Limitations for Expanding Domestic Demand for Agricultural Products," unpublished manuscript, p. 7.

<sup>6</sup>Kohls, R. L., "Can We Advertise Our Problems Away?" *Economic and Marketing Information for Indiana Farmers*, February 1958, p. 2.

<sup>7</sup>Daly, Rex, USDA Projections.

<sup>8</sup>Andrews and Cochrane, *op. cit.*, p. 1.

Group	1954 Millions
Farm groups	\$ 60
Retailers	350
Other "middle men"	1,020
Total	<hr/> \$1,430

Dr. Shaffer estimated that over 2 billion dollars was spent for advertising in 1954. He also estimated that 2 percent of the Gross National Product (8 billion dollars) was spent for advertising of all kinds in the United States in 1953.

A survey of 164 large firms indicated they spent an average of 2.6 cents for each dollar of sales.<sup>9</sup> One-quarter of the national advertising in newspapers is for groceries.

Of 100 leading advertisers (spending 2 million dollars or more each) in 1954, 21 were food product concerns spending a total of 137.4 million dollars.<sup>10</sup> This total does not include newspapers, which received about one-third of all advertising revenue in 1952.

Expenditures for food advertising in newspapers in 1954 was distributed as follows:<sup>11</sup>

Food Item	1954 Percent
Baking products	14.8
Beverages (total)	24.6
Cereals and breakfast foods	6.6
Condiments	6.3
Dairy products	14.8
Meats, fish, and poultry	8.9
Miscellaneous groceries	24.0
Total	<hr/> 100.0

## B. Questions a Producer Should Consider Before Advertising

1. Do you have an advertising message—something truthful and unknown to tell the consumer about your product? Most food products have to have some special characteristics in order to be profitably advertised.

2. Will this message cause consumers to want to buy more of your product? Some general rules should be followed if demand is to be expanded by advertising.

<sup>9</sup>Shaffer, James D., Farmers' Week Speech, Michigan State University.

<sup>10</sup>Kohls, R. L., "The Place of Merchandising and Promotion in Expanding the Demand for Food," Journal Paper No. 895, p. 3.

<sup>11</sup>Andrews and Cochrane, *op. cit.*, p. 1.

a. The product must be advertised truthfully, consistently, continuously, and to the right people. Repetition is usually necessary to change people's habits. A small amount spent for advertising might not pay, even though a large campaign might. Research will be required to determine who does or does not use your products and why.

b. The product must be of consistent quality. If the consumer finds your product is sometimes not as you say, you will benefit little from advertising.

c. The product must be priced competitively. A highly advertised product may be able to command a small premium, but you cannot expect advertising to switch sales from a close substitute sold at a much lower price.

d. The product should be readily available when the consumer asks for it.

3. Can your product be differentiated from similar products? For example, an association promoting carrots will have difficulty convincing customers that Michigan carrots are really different from carrots grown elsewhere.

Advertising by state of origin may be successful if the product has distinctive characteristics which enable consumers to identify it easily. This product may be branded and subjected to a grading or quality control program. The product can then be identified and will have consistently good quality as a distinctive characteristic to promote.

4. The most important question remains to be answered. That is, if the farmer invests in advertising will the returns exceed the costs?

The cost of advertising is relatively easy to determine. The benefits from advertising a farm product are difficult to determine. Groups of farmers advertising a farm product usually have no control of the product's supply as contrasted with individual firms advertising branded commodities. *Supply response characteristics of a given commodity may well be the factor that determines whether advertising that product will pay.* Suppose, for example, that we conduct a big advertising campaign for Michigan potatoes. Advertising is initially effective with an increased demand for potatoes. But additional Michigan potatoes will not be available before next year's crop, and since the demand curve for potatoes is inelastic, the price might increase considerably. For the next crop year resources will be transferred from other agricultural commodities into potatoes, increasing considerably the next year's potato crop. The increase in supplies on an inelastic market may well result in lower prices than before advertising took place.

The probability of obtaining significant price increases varies, therefore, with the degree of control the advertiser has over supplies and prices, or with the degree of supply responses to price changes. One way in which producers have sought some control over supplies and prices is through state and federal marketing orders. A California study showed an expenditure of \$6,900,000 for 28 marketing programs in 1955, with 67 percent of this amount spent for promotion and advertising.<sup>12</sup>

The question of whether advertising of farm products pays can be considered only in respect to a *specific product* and a *specific class of advertisers*.

One of the basic objectives of advertising farm products is to expand consumption of farm products through sales promotion without substituting one farm product for another product. An increase in advertising efforts should result in a total net gain to agriculture. Advertising by the beef industry that results in the substitution of beef for pork may increase the income of the beef industry but invites *retaliatory advertising* by the pork industry. The pork industry may, in fact, be required to advertise to hold its position in the market place. Such efforts would result in increased costs but no income gains to the pork industry nor to the pork-producing farmer unless the demand curve for pork were shifted more than enough to cover the additional costs of the advertising.

In an all-out promotional effort to sell their respective products, both the beef and pork producer may well have less income after advertising costs are deducted. Of course, many farmers produce both beef and pork.

Some economists feel that money raised by producers for the promotion of agricultural products might be substituted for money now spent by processors and retailers and so add little to the advertising budget.

Another concern is that the income benefits reaching the food industry as a result of promotional dollars from farmers might only trickle back toward the farm level with most of the trickle absorbed by marketing agencies.

#### ADVERTISING AND THE "ANIMAL AGRICULTURE" IDEA

Increasing the demand for one farm product at the expense of others or increasing the demand for marketing services is no solution to the over-all income problem in farming. The best argument for adver-

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<sup>12</sup>Hoos, Sidney, "Economic Objectives and Operations of California Agricultural Marketing Orders," California Agr. Expt. Sta. Mimeo. Rpt. 196, May 1957.

tising and promotion is advanced in connection with the "animal agriculture" idea. That is, use more of the farm resources for producing animal products and in this way bring production within the range of human consumption. (This is due to the fact 7 to 8 times as many productive acre units are required to supply one human with animal products as are required to supply him with cereal products.)

A. The specific objectives of such a promotion and advertising program would be to persuade people to buy more animal products which in essence is a higher cost diet.

Mr. Cochrane states that 30 to 50 million consumers in the United States would like to increase substantially their consumption of animal products—they do not need persuading.<sup>13</sup> But given their present-day taste and preference patterns and levels of income, they are unable to purchase more red meat, poultry, and dairy products.

Herrell DeGraff is more optimistic.<sup>14</sup> He states that 50 percent of the pounds of food in the average American diet are now livestock products. Two percent more livestock products per capita would result in a reasonable balance between total current farm production and total consumption. Three or four percent more would significantly lift all farm prices.

B. If such an "animal agriculture" idea were accepted, what would be the objectives and the procedures for carrying out these objectives? And would we advertise beef as a commodity package or stress different brands of beef?

R. L. Kohls questions whether general product advertising can actually shift the demand curve to the right and thus increase the price at which the amount produced will move.<sup>15</sup> He notes that the per capita consumption of both eggs and turkeys was increased largely by lowering the price. We can probably agree on the advisability of advertising brand products or products that can be differentiated, but close substitutes will be chosen only if the price differential becomes significant.

Another decision still needs to be made. Should the advertising efforts be made at a national level, a regional level, or in a limited trading area such as Lansing? Advertising at local levels can significantly increase the consumption of given meat products.<sup>16</sup>

<sup>13</sup>Cochrane, Willard W., "Advertising Fact or Fancy," *op. cit.*, pp. 30-31.

<sup>14</sup>DeGraff, Herrell, "The Place of Food Promotion and Advertising in Expanding Demand for Farm Products," *Policy for Commercial Agriculture*, Joint Economic Committee, 1957, p. 626.

<sup>15</sup>Kohls, R. L., "Agricultural Advertising—A Cure-All?" *op. cit.*, p. 5.

<sup>16</sup>Parsons, Merrill, "Newspaper Advertising of Meat Products in Lansing, Michigan and Its Relation to Consumer Purchases," Master's thesis, Michigan State University, June 1958.

C. An advertising and promotion program on "animal agriculture" would have the following effects:

1. **PRODUCTION AND DISTRIBUTION OF PRODUCTION.** If the price of one livestock product goes up relative to other livestock products, farm resources will shift to the now more favorable enterprise to the extent possible. The same principle of resource allocation applies if the price of all livestock products rises. Demand for products being replaced will decline. The high prices for livestock products would encourage more intensive use of present livestock producing resources and the shift of resources from the now less profitable grain crops. Any sizable increase in the production of livestock products might well result in lower prices than prevailed before the advertising effort.

2. **DEMAND AND DISTRIBUTION OF CONSUMPTION.** We have already noted that the income elasticity for food is low. It is generally recognized that substitutability between cereal grains and livestock products is also low.<sup>17</sup> Both are hindering factors in increasing food's share of the consumer dollar. Most people are already well fed. In terms of nutrition the diets of 20 to 40 percent of Americans are deficient in calcium, certain vitamins, and protein. But these deficiencies could be corrected with no increase in the demand for farm products. A study at Michigan State University<sup>18</sup> showed that some families, whose average meal cost per individual during 1953 was over 40 cents, failed to meet the National Research Council's nutritional recommendations. Other families with meal costs averaging 21-25 cents purchased food that supplied 100 percent or more of the recommendations for calories and eight nutrients.

The possibilities for shifting the demand for all agricultural products is not very encouraging. Persuading consumers to change their purchases from dairy, fruit, vegetable, or cereal to meat will not be easy since these products are not close substitutes. Successful results of advertising one livestock product would more than likely be at the expense of a close substitute—pork to beef, for example.

3. **INCOME AND DISTRIBUTION OF INCOME.** Producers of differentiated products might derive income benefits through promotion, depending on the supply response to the advertiser's product or his control over supply and prices.

D. Net income to agriculture may be less under general advertising than at present. However, other advertising approaches can be used. One approach would be the promotion of a new product about which

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<sup>17</sup>Kohls, R. L., "Can We Advertise Our Problems Away?" *op. cit.*, pp. 2-3.

<sup>18</sup>Kelley, Ohlson, and Quackenbush, "Nutritional Evaluation of Food Purchased by 146 Urban Families During 1953," Michigan State University, p. 7.



little is known or about which information is inadequate or inaccurate. A second approach would be the short-run promotion of products that are experiencing some sort of abnormal situation, e.g., promotional work emphasizing changing supply and price conditions may be quite effective.

## ADVERTISING AS A MEANS OF INCREASING THE DEMAND FOR SPECIFIC COMMODITIES

### A. Wheat

A Kansas circular indicates that we have had a surplus of wheat periodically since 1920, and every year since 1952. The demand for wheat has fallen steadily as incomes have risen. In 1910, 92 million persons ate 482 million bushels of wheat; in 1956, 168 million persons ate only 483 million bushels.<sup>19</sup> The following points are excerpts from the above circular.

1. Consumption of other cereal foods has also fallen so the drop in wheat consumption is not caused by a switch to cereals other than wheat.

2. A study by Borden indicates that the advertising expenditures of millions on the "Sunkist" brand has been an important factor in increasing orange consumption.<sup>20</sup> However, evidence is not conclusive that the advertising of Sunkist oranges has actually increased monetary returns to the producers. A similar study of oranges, walnuts, cranberries, and raisins concluded in like vein "when such advertising has been applied to non-processed farm commodities."

3. Advertising can speed up the adoption of some new socially approved habit such as cigarette smoking.

4. Advertising could not stop the fashion trend against cigars nor high, stiff-collared shirts.

5. The trend against subsistence foods, such as wheat, is not likely to be reversed by slogans like "wheat tastes good" if steaks taste still better.

6. Advertising and promotion could be considered successful if it could retard the downward consumption trend. But nutrition recommendations, income levels, and the fashion of the times all point in the other direction.

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<sup>19</sup>Schnittker, John A., and Ruggels, Wm. L., "Advertising and Promotion of Wheat and Other Foods," Kansas Agr. Expt. Sta. Cir. 353, pp. 5-6.

<sup>20</sup>Borden, Neil, "The Economic Effects of Advertising," Chicago, 1942, pp. 346-49.

7. What about Kansas wheat? Sellers try to convince buyers of real or assumed differences between products. Yet the grain trade, millers, merchandisers, and bakers are well informed and have well established means for finding the quality they want. If Kansas wheat has quality not yet known by the grain trade or by foreign buyers, the world should be told about it.

8. Major differences in wheat exist in a single state. If education on wheat protein content causes discrimination against eastern Kansas wheat, incomes of wheat producers in this area will be reduced. If general taxes support such advertising, those producers lose both through tax and in the market.

9. The major purpose of advertising and promotion should be to improve the public relations of the industry in order to maintain lines of communication with others and to obtain sympathy and support for the wheat program.

#### **B. Michigan Field Beans<sup>21</sup>**

1. There is no way of knowing how much the demand for Michigan beans could be expanded nor at what cost.

2. A great deal of advertising likely is needed to increase the demand sufficiently to raise the price a noticeable amount. A little advertising would be a waste.

3. In the short run, well directed advertising might be effective and pay dividends.

4. In the long run, the elastic nature of the supply function would tend to nullify the effects of advertising.

5. Non-advertisers would gain an advantage in many markets due to the higher costs of the advertising producer.

6. Competitive advertising or the selling of poor quality products could leave the producer in a worse situation than previously.

7. On the other hand, Shaffer remarks that advertising Michigan's beans could be effective and result in a profit, but he is strongly pessimistic about the outcome.

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<sup>21</sup>Extracted from an unpublished manuscript by Shaffer, James D., "Some Observations on Some of the Economic Aspects of Advertising Michigan Field Beans (Dry Edible). Financed by Taxing the Michigan Producer of the Beans," Michigan State University.

### C. Dairy Products

Both wheat and beans are considered subsistence foods. Let us now evaluate the possible beneficial effects of an advertising and promotional campaign for socially approved, highly-rated dairy products.<sup>22</sup>

1. Advertising is not likely to increase the quantity of food used per person in the United States, but consumer expenditures for total food can be increased by shifting consumption to higher priced foods.

2. The chance of success in expanding consumption of dairy products through advertising is better than for many other foods. Butter is the probable exception. One reason for this favorable situation is that the long-run trend for dairy products is upward, butter again excepted.

3. Dairy products have a distinct characteristic which is likely to make advertising effective. The cost is very low in comparison with the food value contributed.

4. In some situations advertising might be more profitable than others. They are:

a. In an isolated market or one which does not admit new producers.

b. During a period when milk prices are low relative to other farm products.

c. When price supports are resulting in surpluses.

5. "If advertising this branded soft drink is profitable, why won't it pay to advertise milk?" The producer of the branded product has control over both the price he charges and the supply of his product. The dairy farmer does not. The demand for dairy products can be expanded by advertising, but the gain from advertising is limited without some control of supply.

### SUMMARY

Americans have a high regard for the ability of promotion and advertising to whet the consumer's appetite and influence his spending. But can promotion and advertising sufficiently affect the aggregate demand for farm products to result in a net income gain to agriculture? Many economists are plainly pessimistic regarding this possibility. They become even more pessimistic if the advertising and promotional efforts are to be financed by farmers. The usual farm group has little control

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<sup>22</sup>Shaffer, James D., "Advertising Dairy Products," unpublished manuscript, Michigan State University.

over the supply of the product, or the price at which the product will be sold. In addition the product leaving the farm is usually not easily differentiated. The combination of these factors seems to justify the pessimism.

If we relax our objective of a net income gain to agriculture and also assume competition among different groups of commodity producers the picture changes. Those products having demands that are most responsive to the advertising message may receive a net gain in income in the short run and possibly in the long run. The products being replaced will have a loss in income.

We need to know much more before we can say with confidence that advertising will or will not pay. Supply responses may negate early gains. Demand responses may be stronger than anticipated. Changes in the marketing structure might call for modification of earlier predictions. In such a dynamic setting earlier conclusions need to be re-evaluated periodically. This need for reappraisal applies to advertising and promotion as well as to other important tools that may be used in solving the income problem of commercial agriculture.