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Foreword

Since 1983 the character of federal legislation concerning commodity promotion has changed in important ways. The role of the U.S. Department of Agriculture has been significantly reduced. Initial referenda and refund provisions are disappearing. Promotion funds are being spent by more industry organizations and trade associations. Comparative advertising is being used. Funding levels have increased greatly.

The Northeast Regional Committee on Commodity Promotion Programs (NEC-63) prepared the enclosed information pamphlets to address questions and issues raised by the recent expansion in national program numbers and funding and the significant changes in the administrative and procedural requirements for program implementation. NEC-63 developed these pamphlets to provide producers, processors, legislators, promotion managers, and economists with objective background information that may be useful in developing, managing and evaluating generic advertising and promotion programs.

The pamphlets provide an overview of existing federal and state commodity promotion programs and the alternative institutional arrangements available for administering them. They examine the potential economic impacts of such programs on producers, consumers and marketing firms as well as such management issues as allocation of funds and effective evaluation. They cover data availability and needs; marketing management strategies and tools; goals; fund raising approaches; and international commodity promotion efforts. They also address public policy issues such as the aggregate effects of promotion programs on supply and demand, the distribution of costs and benefits, the extent to which programs for different commodities offset each other and the role of public agencies as facilitators and overseers of commodity promotion programs.

Executive Committee:

Olan D. Forker, Cornell University, Chairman Walter J. Armbruster, Farm Foundation Henry W. Kinnucan, Auburn University Lester H. Myers, Economic Research Service, USDA John P. Nichols, Texas A&M University

Editors:

Walter J. Armbruster, Farm Foundation, and Robert L. Wills, University of Wisconsin

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Its Role in Marketing

John P. Nichols, Texas A&M University
Lester H. Myers, Economic Research Service, U.S.D.A.
Garry Frank, Drake University

Walking through a modern food store or dining in restaurants or fast-food franchises reveals great diversity and choice. Reflecting modern marketing trends and techniques, available products contain a wide range of built-in services. Food marketing firms recognize the importance of choice and compete to identify and supply new segments of the market. In a large economy such as that which exists in the United States it is possible to have products targeted at a relatively small share of consumers and still achieve sales levels that capture reasonable economies in production and distribution.

Marketing Management

Much of today's diversity has evolved over the past forty years as food product manufacturers and retailers began to recognize the fundamental principles of a market driven economy. Management practices in consumer product firms have changed radically to incorporate a major emphasis on detecting changes in consumer and market preferences and on managing their businesses to capitalize on such information. Modern communication technology and innovations in processing, packaging and distribution have created a capacity to respond to market changes and even to cause them. Product differentiation, the key element in generating improved returns for market oriented firms, is essential to marketing management and market development.

Agricultural producers are typically separated from this process by one or two stages in the marketing process. However, they certainly feel the effects of change as the dynamics of the consumer marketplace ripple backward through the marketing system. In response many farmers and ranchers have developed commodity specific organizations and institutions to enhance the marketing of their product. They have used cooperatives, marketing orders and bargaining associations to increase their role in marketing and their share of the consumer's food dollar. As these commodity groups evolved it became apparent their influence was limited because they did not usually exert direct control or ownership over the product throughout the marketing process. This led to generic promotion programs.

Most introductions to marketing management refer to activities or strategies under four broad headings: 1) product, 2) pricing, 3) place (distribution channels) and 4) promotion. Consumer product firms develop marketing strategies that include options in all four areas. However, for commodity groups representing the generic interests of all producers, the range of viable actions is much more limited. Product characteristics may be influenced only in an indirect fashion through grading or packaging programs under the control of a marketing order or by research sponsored to improve quality characteristics. Pricing and distribution channel development is almost solely tied to the ownership of the commodity/product as it moves through the marketing system. The remaining options focus primarily on promotion activities. While this limits the role and opportunity for generic commodity groups in the broad area of market development for food products, there are still many tools available that can effectively achieve the group's objectives.

The purpose here is to provide an introduction to generic promotion programs, promotion tools and the evolution of the organizations that sponsor such programs. Subsequent leaflets provide a more detailed discussion of these programs: 1) their organizational structures and extent, 2) policy issues, 3) economic objectives, 4) international promotion activities and 5) program evaluation. It is anticipated that the information provided will lead to greater discussion and more informed choices among the options available to program managers and their constituency of agricultural producers.

Promotion Tools

Commodity groups pursue marketing management to increase the demand for a generic commodity. Thus it is important to identify those tools that can be used when control of product ownership is not retained through the marketing process, where production decisions are fragmented across many producers and where product differentiation is confined to characteristics common to all forms of final products derived

from a common raw commodity. Several marketing activities fall within the category called promotion.

Advertising

Advertising is defined as the expenditure of funds to distribute messages about a product or commodity through mass media such as television, radio, newspapers and supplements, magazines and billboards. Media dimensions are also defined according to the geographic coverage. Network radio and television advertisements normally reach nationwide audiences simultaneously. Spot radio and television advertisements only reach selected geographic markets. Another recent classification is cable television which also has national and regional options. Media advertising is most expensive for network television and least expensive for billboards. However, on a perperson-reached basis television advertising generally is the least cost alterna-

The goal of advertising is generally accepted as the shaping of consumers' perceptions and attitudes about the commodity or product to establish a long-term market base. Media advertising is not normally expected to generate dramatic and immediate increases in consumer purchases. Other forms of promotion that will be discussed later are commonly used to stimulate quick sales response. Daily newspaper advertising is often used by retail food stores as a way to communicate weekly price specials. This particular form of advertising can result in immediate response primarily because of price incentives.

During 1985, firms and organizations within the food and beverage industries spent approximately \$7.7 billion on media advertising. Estimates of the total expenditures by commodity groups for all types of generic promotion in domestic markets suggest that the amount is no more than seven percent of total food and beverage advertising expenditures.

Advertising may also be categorized according to the desired objectives. The major objective of branded advertising is to increase market share for the firm owning the brand being advertised and will be directed primarily toward

providing information about the characteristics of the particular brand. The major objective of cooperatively supported "generic" advertising is to increase the total market for a commodity such as milk or cotton. Similar distinctions apply to other marketing management tools used by commodity organizations vs. private firms. The relative effectiveness of these approaches is often debated. It is important when evaluating alternative programs to recognize different objectives. Further consideration of this issue is provided in Pamphlet 6.

Price Promotion

Price promotions are often used by marketing firms and retailers to stimulate quick sales responses. A common form of price promotion used by food manufacturers is referred to as "dealer price incentives." With dealer price incentives, manufacturers allow retailers and wholesalers to purchase product for limited periods of time at prices discounted from the regularly listed price. Sometimes the offer is limited to quantity levels purchased in the past to reduce the "stocking-up" effect. Retailers may decide to pass all, part or none of the price reduction on to consumers.

This type of price promotion is not available to generic advertisers because of the lack of product ownership and control over price. However, commodity groups can engage in price incentives aimed directly at the consumer. Centsoff coupons and price rebates have been used by some commodity groups to provide consumers with temporary price reductions. The method of distributing coupons involves direct mail, print media and product insertions. Price rebates usually involve product insertions only. Because consumers must be informed that price promotion programs are in effect, they are usually accompanied by some form of advertising. Hence, the impact on sales is both an advertising effect and a price effect.

Merchandising

Marketers also engage in promotion activities that focus on the "point of sale" at the retail food store, restaurant or fast-food outlet. These activities are referred to as "merchandising" and the objective is to generate quick sales response. Specific merchandising activities include end-of-aisle displays,

additional shelf facings, banners and signs, in-store product demonstrations, recipe booklets, menu designs, etc.

Most commodity organizations use some type of merchandising technique to generically promote products. Trade contacts with chain buyers and merchandisers to influence their participation in such activities is part of this concept of merchandising. These activities require smaller budgets than advertising and lend themselves to seasonal promotions for quick movement of perishable products.

Product Proliferation

Market research shows that consumers like variety and that different consumer groups consider different product characteristics as being important to their product selection. Marketing firms attempt to meet these consumer demands by frequently changing packaging designs, making slight changes in the product ingredients, adding convenience services, and developing new products. Commodity groups have less flexibility to control these types of activities than do private marketing firms. However, many commodity programs do include funds for new product research and related development activi-

Public Relations

Another tool used to expand markets is called "public relations" and commodity groups have traditionally relied on public relations in their generic promotion efforts. A variety of activities falls in this category including support of local and national civic projects, support of public television and radio, educational programs and materials, meetings with food editors and periodic news releases. Public relations activities have three major objectives. One is to present the company or commodity group in a favorable light. Consumers who perceive that the company or commodity group is a "responsible" citizen of the community, treats their employees fairly, etc., are more likely to buy their products. Another objective is to present the products themselves, or the characteristics they represent, in a favorable light. Thus, a news article describing the medical benefits of calcium and naming dairy products as a good source of calcium would be considered "good" public relations by the dairy industry. A third objective is to foster activities that indirectly call attention to the product. An example might be publication of a "lean beef" recipe in newspaper food pages or consumption of a well-known soft drink in a popular movie

Program Evolution

Commodity promotional programs are one of several marketing tools U.S. producers have used over the last fifty years. Historically, the farm community, agricultural policy specialists and economists have focused their attention on the "traditional" policy tools of price supports, marketing orders and producer-owned farm cooperatives. Recently, we have witnessed a growing interest in commodity promotion. Producer-funded promotional programs have grown dramatically in the past twenty years, although some producers in the citrus, vegetable, and dairy industries have been advertising their commodities for much longer. They have also been using government authority such as legislated check-off and promotional taxes, fees or assessments to generate sufficient and equitable contributions from all producers.

Overview of Development

The development of legislated producer promotional programs occurred simultaneously with increased federal and state government involvement in agricultural production and marketing in the 1930s. The first legislated producerfunded promotional program (i.e., check-off) was initiated in 1935 when the Florida legislature passed a broad array of citrus regulations designed to improve the depressed Florida citrus industry. These regulations established quality standards to prevent undesirable citrus fruit from entering the market, created the Florida Citrus Commission to oversee activities and levied a "citrus advertising tax" on the marketing of oranges, grapefruit and tangerines. Tax proceeds funded advertising of Florida citrus products. The Florida citrus regulations represent an early effort at integrated generic marketing management since they were designed to simultaneously control the quality of citrus entering the market and expand the demand for Florida citrus through promotion and advertising.

By 1940, six states passed similar producer advertising check-off programs. Idaho passed a vegetable check-off in 1937, Michigan for apples (1939), Maine for potatoes (1937), Washington for apples (1939) and lowa for milk (1937). Since 1940, the number and scale of both state and federal legislated promotional programs have increased dramatically. Currently, 312 legislated programs are in effect covering 80 different farm commodities. In 1986, producers generated more than \$530 million through legislated programs for promotion and research.

In order to appreciate the development of legislated promotional efforts in the 1930s, it is important to understand the background factors that contribute to the producer-legislated promotional concept.

The Precedent Years: 1880-1935

During the period 1880-1935, four important events occurred in the farm community that set into motion the development of the promotional checkoff in Florida and other states. First, during the 1880s, several states including Nebraska and Maine took steps to encourage producers to expand local and regional markets for their commodities. They did so by appropriating state monies to state producer marketing organizations for the purpose of promoting farm commodities. However, in order for them to receive and spend public money legally, it was necessary to make producer organizations "quasistate agencies." Defining such organizations as public made it easier for state courts to uphold the constitutional validity of state legislated check-off programs thus allowing producer organizations to "tax" producers for promotional

Another event was the formation of both state and national producer marketing organizations which served as the impetus for generating support for the growth of legislated programs after 1935.

A third series of events were early state regulatory efforts in U.S. agriculture designed to protect product quality through inspection of production and processing. One important feature of these early agricultural regulations was that their administration was financed

by assessments levied on food processors and shippers. It was a small step to levy assessments on producers and processors for advertising purposes in the 1930s.

A fourth event that occurred before 1935 was the failure of voluntary efforts to regulate both the supply of farm commodities and the funding of promotional efforts. For example, during the 1920s, several voluntary efforts were organized in Florida to regulate the quality of Florida citrus and to generate advertising revenues from citrus growers. However, the difficulties of getting all producers to conform to marketing standards and contribute to promotion lead to state involvement in the 1930s.

The Early Years: 1935-1950

As indicated previously, the 1935 Florida Citrus Advertising Tax served as the model program for the expansion of similar programs in other states. Between 1935 and 1950 the number of state programs grew at a modest pace, primarily in the citrus, vegetable and dairy industries. During this period, another event took place in Florida which established an important precedent for other states. Immediately after passage of the 1935 Florida Citrus Advertising Tax, a legal challenge claimed that the advertising tax was unconstitutional. In a 1937 landmark case the Florida Supreme Court upheld the advertising tax. The Florida case was used to uphold constitutional challenges in the other states such as Idaho and Michigan that adopted the Florida advertising plan. By 1949 there were twenty-nine separate programs in place.

Widening the Scope: 1950-1960

During the decade of the 1950s, two interrelated events took place that served to shape the scope and growth of state legislated promotional programs. One event was the expansion of legislated programs into commodities such as wheat, soybeans and corn. The second event was the extension of promotional activities into international markets.

In 1954, Congress passed Public Law 480. Title III of that act established the foreign market development cooperator program of the U.S. Department of Agriculture. The foreign market development cooperator program provides public funding to "match" producer monies to expand promotional efforts into the international sphere. Further discussion of these programs is provided in Pamphlet 5.

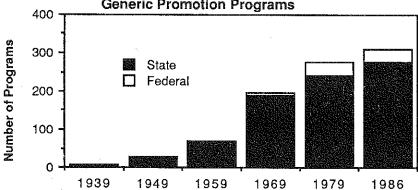
With the incentive for acquiring "matching" federal revenues, commodity organizations dependent on international markets turned their attention to generating promotional revenues. With state programs for citrus and dairy serving as a guideline, state legislated programs for wheat, soybeans and corn began to appear.

states to contribute equitably to cotton market development activities. After passage of the cotton program, other commodities received federal authorization, including potatoes and eggs. During this period, rapid expansion of both federal and state authorized programs occurred with 277 federal and state programs in effect by 1979.

Centralization: 1980s

While a multitude of state and federal authorized producer promotional programs are currently in operation, one of

Figure 1. Number of Active State and Federal Legislated
Generic Promotion Programs



This total does not include 39 state-legislated programs for beef and pork promotion now authorized through federal legislation.

Federal Involvement: 1960-1980

During the decades of 1960 through 1980, state legislated programs continued to grow in size and number. However, one of the most important developments of this period was the involvement of the federal government in authorizing legislation for commodity promotion.

The first federal promotional assessment came in 1962. In that year Congress amended the 1937 Agricultural Marketing Agreement Act (AMAA), authorizing a federal cherry marketing order to assess its producers for promotional activities. Other federal marketing orders pursued similar authorization including dairy in 1971. In 1986, twenty-two of the forty-five nondairy federal marketing orders contained promotional authorization.

Congress also began to authorize "free standing" programs in the 1960s. The national cotton promotional program began in 1966. The legislative history of that act reveals that the primary reason for seeking a national program for cotton was to get all cotton producing

the most important changes in recent years was the consolidation of state promotional programs for dairy, beef and pork. Congress recently authorized national "free-standing" promotional programs for dairy, beef and pork. Together, these three programs generate \$300 million in producer assessments. The arguments presented for "nationalizing" these traditionally state efforts were that national legislation was needed in order to facilitate better coordination across states and to encourage "equitable" contributions from all producers of these commodities. In order to gain political support from the traditional state programs, provisions were made to retain a significant share for local and regional promotion and research efforts.

Summary and Implications

Agricultural producers have attempted to address the challenges of large, rapidly changing markets through increased attention to marketing management strategies. Individually producers can do little to influence the marketing of consumer products made from their commodities because they do

not usually retain ownership through processing and distribution. Through collective efforts, however, they have found that some impact can be made. Generic promotion programs represent one of the more significant group initiatives in commodity marketing.

Through a variety of institutional structures agricultural producers have developed programs to generate revenue and to operate extensive promotion programs. Some operate at the state level, others are regional or national. Some are components of marketing orders, others are based on special purpose legislation. The marketing tools most frequently used are advertising, merchandising and public relations.

From small, fragmented, often voluntary groups, commodity promotion programs have grown into large and complex organizations. Significant operational and policy issues confront managers, their producer boards and the agricultural constituency they are designed to serve. A major continuing concern is the assessment of program success and the contribution these programs make to the economic objectives of producers, marketing firms and others in society. Understanding these issues and making rational private and public decisions require an understanding of economic objectives, operations and methods of evaluation. These are the topics of subsequent leaflets in this series. Interested program managers, agricultural producers, policy makers and analysts will need to explore these problems in more detail.

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Program Funding, Structure and Characteristics

Walter J. Armbruster, Farm Foundation Garry Frank, Drake University

Since the enactment of the first legislated producer-funded promotional program fifty years ago in Florida, their number has grown steadily (see Pamphlet 1). Today, there are 312 federal- and state-legislated producer promotional programs in effect covering over eighty different farm commodities. This total figure does not include 39 state-legislated programs for beef and pork promotion now authorized through federal legislation. Ninety percent of all U.S. producers contribute money to farm commodity promotion and market development activities through state- and/or federal-legislated programs.

Since 1983, three new producer funded national promotional programs generating more than \$300 million in producer money each year have been initiated for dairy, beef and pork. Currently, producers contribute more than 530 million dollars annually to promote their farm products both here and abroad through federal- and state-legislated check-offs or marketing order programs. In addition, more than \$30 million in producer monies are generated by voluntary, nonlegislated actions or through farmer cooperatives. A sizable level of public funding also goes to farm commodity promotion both domestically and for foreign market development (see Pamphlet 5 for details). While the funding levels for promotion are growing larger, they are still small relative to commodity value. For example, the national pork check-off program generated approximately \$22 million in its first year of operation compared to farm sales for pork of \$11 billion.

As the number, size and scope of legislated producer-funded promotional programs grow so do important economic, evaluative and political questions concerning these programs. In order to address these questions it is essential to understand the basic features of commodity promotion programs. This paper describes both public and private sources of funding for producer promotional activities, reviews the voluntary and manda-

tory approaches to generate promotional revenues, examines three major legislative avenues by which Congress and state legislatures establish check-off programs and identifies six major program structures.

Funding Sources For U.S. Farm Commodity Promotion

U.S. food and beverage advertising efforts and expenditures are sizable. In 1985, an estimated \$7.7 billion was spent on food advertising by food manufacturers and retailers who use brand advertising to convince consumers to buy a particular food item. In contrast most producer efforts are geared to generic promotional efforts designed to increase the overall consumption of a particular farm commodity. Funding for these promotional activities comes from federal or state taxes (public funding) and primarily from producer check-offs. Also, a number of major producer-owned farmer cooperatives incur substantial expense to advertise branded products.

Public Funding

As early as 1880, some state legislatures were appropriating modest sums of money to aid their state's producer and marketing organizations in developing larger local and regional markets for their farm products. However, it was not until the 1950s, with the beginning of the USDA - FAS foreign market development cooperator program that public expenditures directed toward generic promotion and market development activities became significant. They have continued to increase, both through matching public funds with revenues generated by producers and by direct public expenditures.

The major example of the "matching" approach is the foreign market development cooperator program. Since 1954, the USDA-FAS has supplemented monies raised by producers and their respective organizations such as U.S. Wheat, Inc. and

the American Soybean Association (ASA). State governments have provided more limited support for producer promotional efforts through similar matching appropriations or by allowing commodity promotional organizations to use state facilities and personnel to aid in their promotional activities.

A second funding approach that states are using increasingly as part of overall economic development strategies is to directly promote their state's farm commodities. For example, Massachusetts spends approximately \$2 million to promote the "Massachusetts Fresh" logo. Other states such as New York and Texas have similar logo programs. lowa has trade offices in Europe and Japan for foreign marketing efforts. While these strategies take a direct rather than matching approach, they do supplement the promotional activities undertaken by producer organizations. In addition, the land grant institutions are becoming more actively involved in marketing, promotion and product utilization research funded through private, producer and public revenues.

Producer Funding

The driving force behind funding generic promotion programs rests with producers and their state and national commodity organizations. Producers have used two main mechanisms to generate funds for commodity advertising—voluntary and mandatory contributions. While not precisely defined in the farm community, the distinction between these two mechanisms has significant legal and policy implications.

Legally, any effort that withholds money from or taxes producers for promotional activities, even though the producer can, after the initial contribution, receive a full refund, can be defined as a mandatory program. Mandatory programs require federal or state law and, in effect, levy a promotional excise tax or promotional regulatory fee on

the producer. Any other method by which producers contribute to promotional activities can be legally defined as voluntary.

Voluntary

Historically, the voluntary approach to producer-funded promotion has been the most prevalent. Many of the legislative programs currently in operation began as voluntary solicitation of money from producers by their respective commodity and marketing organizations. For example, the first legislative program for Florida citrus began as a voluntary solicitation plan by growers in the 1920s. The major problem with the voluntary approach is that it is difficult to get all producers to contribute on a consistent and equitable basis. So-called "free-riders" will receive any benefits from generic promotional programs without sharing in the costs.

There are three types of voluntary promotional strategies. First, there are several producer marketing organizations that attempt to persuade their members nationally or within a specific state to contribute a percentage of their sales to support the organization's efforts to sell more of a specific commodity. This approach is generally associated with specialized types of farm products produced by a small number of highly organized producers such as the American Angus Association.

The market development efforts of the general farm organizations are another category of voluntary producer programs. The American Farm Bureau Federation, the National Farmer's Union and similar organizations conduct market development activities, primarily international, funded from membership dues. Producers contribute voluntarily by being members of such organizations.

The third and most significant voluntary approach is the promotional activity conducted by many of the producer-owned farm marketing cooperatives such as the cranberry marketing cooperative Oceanspray, Inc. Again, producers contribute to the cooperative's efforts as member-owners, and marketing is usually brand, as opposed to generic. In general, producer-owned farm marketing cooperative promotion programs do not involve federal or state legislation and check-offs.

Mandatory

While the voluntary approach to producerfunded promotional efforts is the historical backbone to farm product promotion, the legislative-mandatory approach is now the most prominent. It levies a promotional excise tax or regulatory fee on the producer. The revenues are used by commodity promotional organizations and marketing order boards for domestic and foreign market development activities and research. This type of structure has grown significantly over the past two decades. There is great diversity of size and structure under legislated promotional programs. For example, national programs like the dairy, beef and pork check-off programs are large enough to permit intensive nationwide advertising campaigns. In contrast, smaller programs such as New Jersey's asparagus and Oregon's bent grass state-legislated promotional programs generate only a few thousand dollars each year and conduct more modest marketing activities.

While most mandatory efforts by producers to promote farm commodities, either here or abroad, are generic in content, brand or regionally identified advertising strategies are used sometimes. Washington apples, Florida citrus, Idaho potatoes and California avocados are examples of state-legislated programs that attempt to attribute product characteristics to the specific state or region in which the product is grown.

Legislative Structures

Three main legislative structures currently authorize the collection of mandatory producer promotion and advertising assessments. The most recognized is commonly referred to as the "free-standing" or "commodity check-off" program. Under this form of authorization, each commodity has separate federal or state legislation for promotion and research. Federal program examples include cotton, dairy, beef, pork and potatoes. Examples of state free-standing programs include the Nebraska wheat checkoff authorized under the Nebraska Wheat Promotion and Research Act and the Illinois soybean check-off under the Illinois Soybean Promotion and Research Act.

A second legislative structure authorizes promotional efforts under federal or state marketing orders. In general, these programs also authorize other types of marketing tools including quality and quantity controls. The 1937 federal Agricultural Marketing Agreement Act (AMAA) currently allows twenty-two of the forty-five operational fruit, vegetable and speciality crop marketing orders to collect promotional revenues from producers. At the state level, the 1937 California Agriculture Marketing Act (AMA) allows fifteen out of a total of twenty-four marketing orders to collect producer revenues for promotion. Historically, the major differences between the free-standing and the marketing order structures include the following: (1) marketing orders use various supply management tools and set marketing standards in addition to commodity promotion; (2) federal marketing orders are usually confined to a specific geographical region as opposed to political boundaries such as state or U.S. boundary lines; and (3) most marketing orders do not allow producer refunds. However, as free-standing programs become more "nonrefundable" and as marketing orders increasingly focus on demand enhancement, the differences between them are becoming increasingly blurred.

The third legislative structure, promotional orders, is used only at the state level. These programs closely resemble the free-standing programs in that their major emphasis is on promotional activities. They also resemble the marketing order approach in that a single "omnibus" legislation authorizes numerous commodities to implement commodity promotional programs. Examples include the Georgia Commodities Promotion Act (1961), the Minnesota Commodities Promotion Act (1969) and the Texas Commodity Referendum Law (1967).

Program Structures

Within the three legislative structures at least six major program structures are identifiable among federal- and state-legislated programs. At the very specific levels of program operation there are numerous differences even among programs that are authorized within the same state.

State Specific

In this model, a state program is authorized for promoting a specific state commodity. The Florida citrus advertising program operates under a state-authorized marketing order that establishes Florida citrus marketing regulations as well as advertising and marketing research. The promotional activities carry state identified logos and images. The program taxes all Florida producers of oranges, grapefruit, tangerines, and associated products. Its advertising efforts are both national and international in scope. The California Avocado Commission is authorized by the California Avocado Promotion and Marketing Act which requires that California avocado growers contribute to the commission's promotional efforts. Similar to the Florida example, the commission's efforts are both domestic and international in scope. However, unlike the Florida example, the commission's authorizing legislation is a free-standing rather than a marketing order structure and avocado growers may request a refund should they decide not to participate. This model usually covers commodities that are produced within a single state and have state or regionally identified consumer characteristics.

State Decentralized

This model is employed in instances in which a commodity such as soybeans is produced across several states and does not carry with it state or regionally associated characteristics. Producer funding for ASA international sales efforts are generated through twenty-five state authorized soybean promotion excise taxes. Each state remits a percentage of monies generated to ASA with the remainder of the monies used by state promotional boards for state/regional promotion and research efforts.

National Decentralized

This model is the most recent effort to fund farm commodity promotion. The national

dairy, beef and pork promotion programs are examples of this model. This legislative model is used to achieve better coordination between state programs and more equitable producer participation across states. For example, dairy promotion in the United States is conducted both at the national and localregional levels. The Dairy and Tobacco Adjustment Act (1983) requires that all producers pay a dairy promotion excise tax of 15 cents per hundredweight of milk sold commercially. While at least 5 cents must be remitted to the National Dairy Promotion Board, up to 10 cents credit may be retained locally to fund regional, state or local dairy product promotion.

The Food Security Act (1985) requires national promotion assessments on beef and pork. The beef assessment (\$1.00 per head or its equivalent) is collected at the state level with allocation of the assessment going to both national and local promotion efforts. For example, in states which had existing state-legislated beef check-offs prior to 1985, 50 cents of the total assessment is retained locally and the remaining 50 cents is used for national promotional efforts. In contrast, the responsibility for collecting the national pork check-off rests with the National Pork Producers Council and local shares of the national pork check-off are prorated back to the states by the National Pork Producers Council.

Under this model, there are still 10 state-legislated programs in effect or "on the books" for pork, 29 for beef and 23 state programs for dairy. The role that state-legislated programs play in the assessment and promotion process is different for each of these three nationally legislated programs. In addition, such as in the case of beef and pork, the model also creates the possibility of "checking-off" imports, something not easily accomplished legally under either of the two state models.

National Centralized

While it is similar to the national decentralized model, there is generally no allowable credit of funds to the state or regional levels and state programs do not play a significant role in program operation. For example, the National Cotton Board collects the national cotton check-off and decides how to use check-off money but the primary activities are carried out by Cotton Inc. Another example of this model is the national potato promotion program.

Marketing Order Structure

A fifth model is the marketing order approach. For example, federal marketing order #927, authorized under the 1937 AMAA for Oregon-Washington-California winter pears, regulates the quality marketed. The geographical boundaries of the order are specific, crossing state boundaries. In addition, producers covered under this order pay a mandatory assessment on

volume sold for promotional activities conducted by the administrative board. Similar marketing order examples are found at the state level, especially in California, New York, Michigan, Florida, and Colorado.

Legislative-Farm Cooperative

As indicated earlier, many farmer-owned marketing cooperatives use the voluntary approach to farm commodity promotion. But exceptions do exist as under the federal marketing order covering California almonds. California Almond Growers Exchange is a producer-owned cooperative that promotes its Blue Diamond label as a branded product both domestically and internationally. The cooperative members receive credit for their contributions against the mandatory assessment.

Existing Programs

For the producer, the public policy official and the economist, some of the major descriptive questions that arise concerning legislated programs include: How many programs exist at the federal and state level? How many of these programs allow refunds? Which type of legislative structure dominates? Do all programs require producer approval in an initiating referendum before they become effective? How many programs require periodic producer reapproval through a formal referendum process?

Table 1 provides an overview of the characteristics of federal and state promotional programs during 1986 for eight commodity classes, it indicates the number of legislated programs for each class, including marketing orders with promotional authorization. The table also reveals the legislative structures associated with commodity promotion -free-standing, marketing orders and promotional orders. In examining the refund provision, note that the majority of programs do not allow refunds. This is primarily a function of the number of programs operating under marketing orders. Also, the largest programs (dairy, beef, and pork) do not (or will not) allow for refunds and operate as free-standing federal programs. Almost 72 percent of all programs require an initial referendum to implement the program before an assessment can be collected. In some states such as Idaho, the state constitution does not allow those affected by state law (e.g., producers) to vote on its acceptability once the state legislature has passed it. The national dairy, beef and pork check-off programs require producer referenda approval after they have been implemented and collecting assessments. Less than 50 percent of current legislated programs require periodic referenda reapproval by the producers in order to continue. The national dairy, beef and pork promotion programs do not require such reapproval.

Table 2 shows these characteristics as totals for 1979, 1982 and 1986. The comparisons reveal a decline in total programs from 319 to 312 between 1982 and 1986. The 1986 total program of 312 does not include 39 state-legislated beef and pork programs. Though state programs are still operative as promotional, research and regulatory programs (i.e., decentralized national model), legislative authority for promotional taxation is provided through federal check-offs.

Expenditures

Another important dimension of commodity promotional efforts is the expenditure levels of these programs. Table 3 shows the expenditure levels for 1986 by commodity class for domestic and foreign promotion and for research. Examination of the totals reveals that nearly 90 percent of expenditures for all commodity classes is domestic because commodity classes with the highest expenditure levels (dairy and meat) are aimed at the domestic market. As would be expected, field crop programs spend the most on international market development Table 4 compares spending for efforts. commodity classes for 1979, 1982 and 1986 which reveals a significant increase in total expenditures for domestic advertising and promotion as well as for research. The table shows that between 1979 and 1986, producer expenditures for domestic promotion nearly doubled on a constant dollar basis with somewhat smaller increases for foreign market development and research.

Summary

There are two main sources for funding generic farm commodity promotion and advertising—one is the public and the other is the producer. Historically, producer efforts have been predominant. The legislative (e.g., mandatory) producer approach has been the most significant method for generating producer monies for both international and domestic market development activities.

There has been a definite upswing in the number of generic commodity promotion programs since 1935 and a recent push toward creating large national programs. These efforts focus on increasing sums of producer money for domestic market promotion. Simultaneously, the discretion allowed the producer in determining whether to participate in generic promotional programs has declined, especially at the federal level. Therefore, it is all the more important that economic analysis examine the costs and benefits of promotional activities for specific farm commodities to individual producers, consumers and the agricultural commodity marketing system.

Table 1. Characteristics of Federal- and State-Legislated Programs, 1986

	Commodity class							
Characteristics	Dairy ^a	Field crops	Fruit	Natural fibers	Other b products	Poultry/ eggs	K eat ^C	Vegetables
Program authorization							·	
Federal	6 :	0	15	2 9	4	1 -	2	5
State	23	67	67	9	34	26	6	45
Total number programs	29	67	82	11	38	27	8	50
legislative structure								
Free-standing	16	42	20	9	18	15	6	27
Market order	8	6 19	43 -	0 2	11	0	0	23
Promotion order	5	19	19	2	9	12	2	0
Refund								
Yes	0	53	16	7	13	18	2	12
No	0 29	14	66	4	25	9	2 6	38
Initiating referendum								
Yes	21	41	65	7	27	20	6 2	36
No	8	26	17	4	11	7	2	14
Periodic approvat						•		
Yes	0 .	28	50	5	11	15	3	30
No	29	39	32	6	27	12	3 5	20

^a Includes the national dairy check-off program, five federal milk marketing orders that allow for b promotion and 23 state-legislated programs.

Includes commodities such as honey, tree nuts, catfish, and oysters.

Includes only national beef and pork check-off programs which operate in conjunction with 39 state check-off programs and the figures also include state-legislated check-offs on sheep and wool. Denotes that a formal and periodic reapproval referendum is required.

Table 3. Producer Expenditures for Federal- and State-Legislated Programs, $1986^{\rm B}$

	Advertising/promotion				
Commodity class	Domestic	Foreignb	Research	Total	
	(Dollars in millions)				
Dairy	183.0		11.0	194.0	
Meat	71.0	3.0	10.0	84.0	
Fruit	58.2	8.3	4.2	70.7	
Field crops	7.7	17.1	6.1	30.9	
Natural fiber	14.8	5.9	5.8	26.5	
Vegetables	8.6	1.0	2.2	11.8	
Poultry/eggs	7.2	.14	1.0	8.3	
Other products	6.7	.5	1.2	8.4	
Total	357.2	35.9	41.5	434.6	

Revenues generated through federal- and state-legislated programs are \$530 million. Eighty percent of total revenues are expended for promotion and research when allowing for refund requests,

Table 2. Characteristics of Federal- and State-Legislated Programs, 1979, 1982 and 1986

		Year		
Characteristics	1979	1982	1986	
	(Number)			
Number of programs				
Federal	36	33	35 277	
State	241	286	277	
Legislative structures				
Free-standing	122	147	153	
Marketing order	83	96	91	
Promotional order	72	76	68	
Refunds permitted				
Yes	125	139	121	
Жо	152	180	191	
Initiating referendum				
Yes	195	229	223	
No	82	90	89	
Periodic reapproval				
Yes	144	167	142	
No	133	152	170	

Does not include 39 state-legislated programs for beef and pork authorized prior to 1985.

Table 4. Producer Expenditures for Federal- and State-Legislated Programs, 1979, 1982 and 1986

		Expenditures					
Year	Domestic	Foreign	Research	Tota			
		(Constant 1986 dol	lars in millions)				
1979	180.6	19.7	24.6	225.0			
1982	172.4	35.5	30.5	238.			
1986	357.3	35.8	41.4	434.			

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b program administration and other costs.

Does not include USDA-FAS matching contributions.



Public Policy Issues

Walter J. Armbruster, Farm Foundation Ronald W. Ward, University of Florida

Congressional authorization of national generic advertising and promotion programs for agricultural commodities allows organized producers to collectively fund promotion of their specific agricultural commodities. This authority is provided through marketing orders, special federal legislation and export incentive programs. Similar programs operate at the state level.

The number of generic promotion programs and the amount of their expenditures have increased notably during the 1980s. Administrative structures and funding regulations also have changed in important ways. This program expansion and change has spurred public debate about the effect of generic promotion of agricultural commodities on total food consumption and the product mix of foods purchased and the merits of domestic versus international promotion. These public policy issues fall into two categories: 1) legislative content and program implementation and 2) broader public policy issues.

Legislative content and program implementation issues relate primarily to participant equity: refund availability; producer referendum timing prior to or after program implementation; increased expenditures through industry and trade organizations; and funding levels.

Broader public policy issues encompass the distribution of program costs and benefits; the role of advertising as a general agricultural policy tool; the applicability of check-offs to imports as

well as domestic commodities; the role of the public sector in program oversight; and data needs for program management and evaluation.

Program Content and Enabling Legislation

There are several broad policy issues that relate primarily to equity among those directly involved in promotion programs.

Refund Options

Check-off assessments, collected at the point of the first sale, are withheld from the payment to the producer. Assessments paid to the authorized programs are mandatory for producers supplying product encompassed within the production definitions of the legislation. A number of programs include refund provisions, but as a result of a trend eliminating options in recent free standing national legislation, more than half of producer check-off funds are nonrefundable.

Free riders who benefit from voluntary programs without contributing were a primary reason for establishing federal programs. The incentives for individual growers to voluntarily invest in generic promotion are weak. Programs are directed toward long-term demand growth; generic promotion cannot show the same direct benefits to producers as branded promotion shows to individual producers of branded items; most evaluations of generic programs address aggregate sales gains, not indi-

vidual gains. Although it is often difficult for a single firm or producer to visualize, if generic promotion efforts are successful in increasing demand, then all producers of the advertised product benefit. Producers of agricultural commodities must take a longer-term view of generic versus branded promotion programs.

In the early generic promotional programs, refunds provided recourse for those opposed to the programs. Despite the fact that individuals must formally request refunds, typically a complicated process, national promotional programs for eggs and cotton have experienced very large levels of refunds in recent years. Such refunds not only create an added administrative cost but, when substantial, create an inherently unstable program and only compound the free rider problem.

The dairy, beef and pork industries legislatively eliminated the free rider problem by excluding refund provisions in their national programs. The cotton industry also is seeking to eliminate refund provisions.

The public policy issues involve the ability of the majority of those voting in a referendum to set mandatory provisions for everyone in the industry. Programs without refund options must be carefully designed to assure an equitable distribution of the benefits since all producers are required to contribute proportionally to the programs. Likewise, administrative representation must cut across the broad range of interests among those

supporting the program. For example, if assessments are imposed on a product entering the market in both fresh and processed forms, advertising programs must be directed at both markets. Otherwise, different segments of the industry may realize disproportional net benefits.

Producer Referendums

Either a majority or two-thirds of the producers must approve a check-off program for it to be established. Assessments then are imposed only on producers exceeding minimum production levels.

The creation of the National Dairy Promotion Program under the Dairy and Tobacco Adjustment Act of 1983 was the first instance in which a federal program was allowed to be initiated prior to a referendum to certify producer approval. The beef and pork industries have since been successful in implementing programs with no up-front referendums. Instead, referendums will be held after these two programs have operated for specified periods. Under this new procedure, the public policy issue involves the equity implications of imposing a program on producers who have not voted on the mandatory assessments. Up-front referendums force producers to vote based on subjective expectation of program benefits. Holding a referendum later provides a period for experimentation from which producers can gain information about program benefits on which to base their vote. Part of the earlier assessments collected without a referendum can be viewed as the cost of acquiring better information for voting on longer-term programs. Clearly, a system for providing unbiased evaluation of the programs during the experimental period is needed so that producers can make the best informed decisions during the subsequent referendum.

Existing Trade Organizations

Existing trade organizations often carry out promotional programs and therefore benefit from increased national generic check-off funding. The National Livestock and Meat Board receives national beef promotion funding and the National Pork Producers Council receives dollars from the national pork marketing program. Under the National Dairy Promotion and Research Board, a sig-

nificant amount of funding is made available to regional milk market orders to conduct regional advertising. While dairy organizational structures were already in place and funded by regional contributions, the national efforts significantly increased the potential level of funding. However, programming and administrative control of a fixed share of the total assessments were placed with the Dairy Board, formed as a new administrative structure not tied to existing industry associations.

Potential benefits from using established organizations are twofold. First. the internal structure is already in place, thus possibly reducing extensive startup costs. Second, regional organizations may more effectively tailor programs to regional conditions. The more likely situation is that in which both regional and national programs are needed, especially for commodities that have a wide production and consumption base. For example, credit for up to 10 cents out of a 15 cent total assessment for dairy is permitted for program expenditures by state and regional organizations. Research points to the benefits for both organizational structures but shared efforts are not without their coordination and political difficulties.

A question arises about the goals of such regional organizations relative to the long-term best interests of all producers. Once such organizations are in place, there is a strong incentive to maintain levels of programming, staffing and funding. Thus, generic promotional programs may become institutionalized with specific organizations having a great stake in their continuation. An issue is the possible influence of such organizations on the type of program evaluation results used to justify continuing producer authorization of programs.

Broader Policy Issues

In addition to the public policy issues involving equity among producer participants, there are several that affect a broader range of parties.

Distribution of Costs/Benefits

Evaluation of the effects of generic promotion on the total marketing system requires continued monitoring, drawing on a research base and data collection

systems. One would first expect to see shifts in product demand, then increased supplies in response to higher prices. Longer-term successful programs might induce new producer entry, thus increasing and shifting the amount supplied at any given price. The ultimate effect of advertising on prices is dependent on responses in both demand and supply. Since the increased expenditures from generic promotional check-off funds increase the costs to each level in the marketing channel, the extent to which increased revenues are obtained by producers and marketing firms is important in analyzing the net impacts from generic promotional programs.

Consumers may initially face higher prices as a result of generic promotional programs. The very essence of generic promotion is to increase commodity sales at any price and to lessen consumers' sensitivity to price changes (see the discussion in Pamphlet 4). Generally, generic advertising should lead to shifts in demand rather than lessening price sensitivity, however. The underlying purpose is to increase income to producers. Failing this, the programs are not desirable from the producers' viewpoint. Ultimately, the extent to which consumers can expect to pay higher prices will depend not only on the demand but on fundamental changes in production and the market structure. More research is needed to determine how well retail price increases pass through the marketing channel to producers, and whether advertising increases market power or consumption.

Prices increase with rising demand, holding other factors fixed. Yet, given time, there is potential for expanded supplies, reallocation of products among uses and improvements in the marketing infrastructure. For example, recent increases in fluid milk consumption, partially attributed to generic advertising, have resulted in some small reallocations of milk from manufacturing to fluid use and possibly reduced government support program purchases. Likewise, other commodity groups adversely affected may become more price competitive. For example, how will poultry pricing change with major beef promotions? Possibly the poultry consumer will be one beneficiary of expanded beef promotion programs.

Assuming prices are increased, another major policy issue is the impact on consumers in different income levels. The impact could be greater on lower income consumers since food consumption accounts for a larger share of their disposable income. The question to be addressed is whether government authority for generic promotional programs to increase producer incomes has a positive or negative impact on lower income consumers. The major impact on this income group depends on the current mix of goods included in their market basket and how this mix changes. For example, consider three goods, A, B and C for which A includes a national advertising program and (A, B) are close substitutes. If the lower income group's market basket is (A, C) and prices for A increase, then this income group may be adversely affected by the national promotions. Whereas, if the basket is (B, C) and advertising of A leads to lower prices for B, then this lower income group is a beneficiary. While this example is simplistic, it does reflect the difficulty in drawing definite conclusions about the impact of generic programs across income groups.

Some goods are so basic that they appear in all market baskets across income strata while others are more concentrated among selected income levels. Perhaps a greater understanding of this mix of goods would provide insight into the potential distributional effects of the advertising programs.

The above arguments relate to costs and benefits associated with changing prices and shifting market baskets. Many of the newer commodity advertising programs emphasize nutritional education. While it is difficult to place an economic value on nutrition, it is likely that lower income groups have the greater need for nutritional education. The welfare benefits achieved through improved nutrition could far exceed losses associated with rising prices, but the difficulty in measuring such benefits is most apparent.

Funding Levels

Substantial increases in the total assessments for generic promotion raise several issues that were less important under previously lower funding levels. Clearly, optimal funding levels are dependent upon the marginal effectiveness of the particular advertising program and should not exceed the point of diminishing net returns. Much of the present advertising research has been useful for addressing this question. Similarly, the allocation of funds among generic advertising, research, nutrition education and market development presents difficult programming decisions. Questions about joint efforts between generic and brand programs are particularly important for those commodities that can be readily differentiated. Is it in the public interest for generic funds to be used for brand advertising? One must have a clear understanding of the commodity characteristics even to grasp what constitutes brand versus generic advertising.

Increased levels of funding by several major competing commodities--namely beef, pork and dairy--elicit questions about the intercommodity impact of promotional programs. There are consumption limits for food, particularly in developed countries. If one commodity gains a greater share of the total market basket, it is to some extent at the expense of competing commodities. For many commodities, a small increase in consumption, while beneficial to a given industry, may be imperceptible in its impact on the total list of foods consumed. Likewise, it is doubtful that any of the current generic programs could push the consumer to the point of saturation for foods in total.

Conclusions regarding the effects of advertising on the total food basket and shifting commodity shares are mostly subjective. Research shows the sales gains from generic advertising of specific commodities, not the effects on the total mix of food consumption. Whether these gains represent a growth in the total food consumption or a shift among alternative foods is unknown.

Advertising As A Policy Tool

Historically, commodity advertising has not been viewed as an alternative for achieving specific governmental domestic farm policy objectives. As a policy tool, advertising is fundamentally different from other government programs in that there is no direct government involvement in funding of domestic advertising programs. It does, however, provide a mechanism for enhancing demand and thus potentially reduc-

ing pressures on increasing government stocks and/or support costs for selected commodities. For example, the potential benefits from increasing assessments on dairy producers for promotion activities are currently being debated. The role of advertising in farm policy is likely to be particularly important for those commodities with substantial government stocks. Broader use as a policy tool may be limited for major commodities due to intercommodity effects as discussed in the previous section.

Advertising and promotion have long been used in, and have become an increasingly important element of, some marketing orders for milk and for fruits, vegetables and horticultural crops. They have not been used as a domestic agricultural policy tool for major commodities, however, although the promotion of U.S. agricultural commodities in foreign markets has been a policy tool used rather widely. Recently, foreign promotion has received a substantial boost under the Food Security Act of 1985 (see Pamphlet 5). Since any sales gains in foreign markets will likely come at the expense of competing suppliers or result in increased total food demand, public policy concerns due to intercommodity trade-offs are minor.

Imports and Check-Offs

Most generic promotional programs are directed to domestic markets. Foreign suppliers exporting to the United States are in a position to benefit from these programs without directly sharing in the costs. Just as mandatory assessments are designed to eliminate free riders within the domestic producer groups, the inclusion of imported commodities subject to the assessments is intended to eliminate free riders among exporters to the United States. For example, the Florida citrus industry has been concerned with the extent to which imported Brazilian orange juice benefits from domestically funded generic advertising programs. Current legislation does not make imported juices subject to the advertising assessments.

If a commodity is not differentiable based on country of origin, certainly the imported products benefit from gains generated through advertising. To the extent that differentiation is possible or different markets draw upon imported

versus domestic sources of supply, then the degree of inequity is lessened. Assessments on foreign imports seem equitable in that those benefitting are required to contribute their fair share of the program cost. As a trade-off, the equity of participation argument may be easily extended to allowing everyone contributing to the generic fund to have input into the program design. This would then include the exporters to the United States but could bring conflicting goals into program management.

How assessments on imports interact with GATT rules and the current round of negotiations aimed at reducing barriers to trade may be an issue for further attention in the public policy arena. These assessments should not be confused with tariffs and duties that go directly into federal coffers. Tariffs and duties do not provide any direct benefit to the exporters to the United States, whereas advertising assessments do.

The Role of the Public Sector

The U.S. Department of Agriculture (USDA) administration of promotion programs has been relatively free of major problems. Direct government involvement in setting operating policies and programming for generic programs has been minimal. A fundamentally "hands off" oversight policy by USDA and responsible administration by the commodity boards have generally worked well. Before the mid-1980s, there were several common statutory constraints that set limits on program activities. Together these influences helped minimize problems within each industry and among industries. Beginning in the mid-1980s, however, many of the statutory constraints were modified or eliminated in new promotion legislation.

The issue is whether the public authority for generic promotion check-offs should

carry with it more responsibility for public oversight of such programming by USDA. Otherwise, the programs impose a tax on producers that is passed through to consumers for the benefit of producers under government authority without public accountability. Mandatory evaluations have been included only for the dairy program in recent national enabling legislation. Is mandated evaluation for use by policy makers and by producers who need information about their potential net benefits a desirable policy requirement for all federally legislated programs? should the requirement vary among commodities as determined by the individual legislation?

Data Needs

The data needs for analysis of these public policy issues and for program management decisions may exceed those perceived by management of generic commodity promotion boards.

Often data bases are collected without having a clear understanding of their intended uses. It may be appropriate for USDA to specify collection of such data as needed to answer important public policy issues related to distributional impacts and cross-commodity effects. In that case, should data collection costs be borne by producers or by tax-payers? Determining data needs and availability is a very difficult problem under any circumstances and is treated in more detail in Pamphlet 6 of this series.

Concluding Remarks

Expanding generic advertising checkoff programs raise a number of public policy issues. Removing the possibility of refunds, setting up programs prior to referendums, funding existing trade organizations and substantially increasing funding levels represent significant changes from previous programs. Public policy issues are raised about the distribution of costs and benefits of these programs, cross-commodity effects that may be generated by advertising of competing commodities at substantial levels, and whether adequate data will be available for sorting out the program impacts and effectiveness. Subjecting imports to check-offs seems equitable in terms of eliminating free riders, but may conflict with current emphasis on reducing barriers to trade. Finally, the appropriate role of the public sector in monitoring generic promotion programs needs to be addressed.

These public policy issues need attention by congressional and administrative policy makers, commodity group leaders, researchers and farmers contributing to such programs. They may also receive attention from consumer groups concerned about the impacts of such programs on the cost of foods and the distributional impacts on consumers with different income levels.

This pamphlet is a product of the Northeast Regional Committee on Commodity Promotion Programs (NEC-63). Executive Committee: Olan D. Forker, Cornell University, Chairman; Walter J. Armbruster, Farm Foundation; Henry W. Kinnucan, Auburn University: Lester H. Myers. Economic Research Service, USDA; and John P. Nichols, Texas A&M University. Editors, Walter J. Armbruster, Farm Foundation, and Robert L. Wills, University of Wisconsin, Published in March 1988 by the Department of Agricultural Economics, the New York State College of Agriculture and Life Sciences at Cornell University, Ithaca, NY 14853-7801. Fact sheets in this series include Generic Agricultural Commodity Advertising and Promotion: (1) Its Role in Marketing; (2) Program Funding, Structure and Characteristics; (3) Public Policy Issues; (4) Economics and Impacts; (5) International Programs; (6) Program Evaluation.



Economics and Impacts

Robert L. Wills and Thomas L. Cox, University of Wisconsin

Economic theory and analysis can be used to determine what generic agricultural commodity promotions can and cannot accomplish.

Commodity promotion programs are comprised of research and development, as well as promotion. Research and development of new products, of processing techniques and of packaging increase commodity consumption by improving retail availability and product quality. "Push" promotion activities target wholesalers and retailers through rebates, incentive plans and trade journal advertising. These activities "push" product through to the retail level and increase retail availability. In contrast, consumer promotion activities including advertising through newspapers, magazines, radio, and television attempt to "pull" product through the retail outlets, encouraging consumption by changing consumer awareness and attitudes.

Demand and Consumption Changes

Purchasing behavior can be summarized by a demand curve showing the relationship between the price of a product and the quantity purchased, holding constant all other relevant factors such as prices of substitutes and/or complements and consumer incomes. Supplier behavior is shown by a supply curve indicating the quantity producers are willing to sell at different prices, holding constant all other relevant factors such as production costs and technology. Consumption is the quan-

tity supplied and purchased at the market-clearing price. On a graph, this market-clearing quantity and price is shown as the intersection of the supply and demand curves.

Consider a consumer who purchases 3 pounds of hamburger a week if it costs \$1.05 per pound, 2 pounds a week if it costs \$1.55 per pound, and 1 pound a week if it costs \$2.05 per pound. Combinations of quantities purchased at specific prices can be plotted as a demand curve. The slope of the demand curve becomes flatter or more elastic the larger the reduction in quantity purchased for each price increase. Demand curves can be calculated for individuals, groups of individuals or for the market as a whole.

Many factors affect the slope and level of demand curves. For instance, consumers with higher incomes are likely to purchase more lobster and less hamburger than consumers with low incomes. Thus the level of the demand curve for hamburger may be lower for a high income individual. At the same time, the high income consumer is probably less responsive to a change in hamburger price. So the high income consumer's demand curve for hamburger may be steeper as well as lower than the hamburger demand curve of lower income consumers. The price of substitutes and the price of complements, or supporting products, also affect the level and slope of demand curves. For example, hamburger substitutes include pork chops or hot dogs and complements include hamburger buns and cheese. Demand curves also can be affected by geographic location and seasonal changes.

The effects of promotion programs can be measured by their effects on the level and shape of demand curves. A successful promotion will usually increase sales of a commodity at any price, producing an outward shift in the demand curve. Alternatively, promotions may make consumers less responsive to price changes, making the demand curve steeper.

To measure the effects of promotion programs on demand curves, econometric techniques are used to isolate the promotion effects from the effects of changes in income, season, locality, prices of complements or substitutes, and other variables that may coincide with the promotion effort. Consumer behavior with the promotion is then compared to what it would have been if nothing had changed except for the level of promotion spending. Promotions can be successful even when sales decline if, without the promotion, the sales decline would be greater. Conversely, promotion programs cannot be credited with sales increases resulting from unrelated changes in demographics, lifestyles, incomes, or

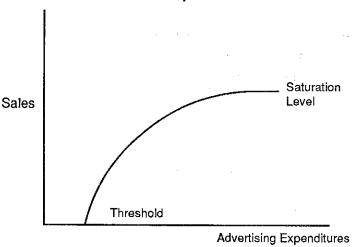
Dimensions of Commodity Promotion

Advertising impacts are affected by (1) minimum promotion thresholds, (2) saturation levels and (3) carryover effects.

 Minimum promotion thresholds are the minimum level (and quality) of advertising messages required before consumer impacts occur (Figure 1).

expenditures. Total anticipated benefits from a promotion may exceed expenditures even if initial sales responses are small.

Figure 1. Relationship between Advertising Level and Impact on Sales



- 2. Saturation levels are the limits of consumer response to an advertisement in the presence of competing messages or frequent repetition of the same message.
- 3. Carryover effects are sales increases resulting from previous promotional efforts. Figure 2 shows two examples. Minimum threshold levels may be achieved at varying rates depending on the promotional approach used and the characteristics of the commodity being promoted. Maximum impact is not achieved immediately. This is called delay. Once maximum impact is achieved, it declines or decays over time. Decay can also occur at different rates, depending on the promotion approach and product characteristics.

Current demand for a product is partly a result of current advertising and partly a result of past advertising. The delay and decay concept can be used to weight current and past advertising expenditures when attempting to determine how much consumer goodwill, or advertising capital, has accumulated from previous advertising efforts.

The current and future impacts on sales from a current advertisement must be adjusted for inflation to determine whether total benefits are worth current

Marginal Analysis and **Optimal Commodity Promotion Programs**

One way to measure the success of a promotion program is to determine whether revenues or other benefits resulting from the promotion have greater value than the cost of the promotions. For instance, if promotion expenditures of \$12 million generate additional consumption of 4 million pounds of a commodity, the promotion program is a success or failure depending on the per pound value of the commodity.

However, another way to evaluate promotion programs is to examine whether expenditure levels and distributions are optimal. Promotion expenditures are too high if the last dollar added to the promotion budget generated less than its value in additional sales or other benefits. In that case, decreasing advertising would increase net benefits. Conversely, promotion expenditures are too low if the last dollar spent generated more than a dollar's worth of benefits.

Optimality can also apply to allocation of promotional dollars. Promotional expenditures can be shifted among products (from fluid milk to cheese or yogurt), regions, different advertising media. locations, target audiences, timing, agencies, themes or messages. The allocation of promotion expenditures is optimal when the benefit from the last dollar spent is equal in each alternative use.

An optimal promotion program may produce much higher benefits than one that merely attempts to cover total promotion costs. Sophisticated econometric techniques are needed to evaluate whether total spending and distribution of promotion programs are close to optimal. Pamphlet 6 addresses program evaluation.

Impacts of Commodity **Promotion Programs**

The most common objective of commodity promotion programs is to increase demand for the commodity

Time

(alternative forms) delay Impact of Advertising on Sales

Figure 2. Impact of an Advertisement over Time

0

being promoted. Some programs attempt to increase commodity prices or quantity of the commodity sold and others try to stabilize prices, quantities or farmer revenues. Regional promotions attempt in part to enhance the image of produce from a particular locality. Some programs have several of these objectives.

Commodity promotion programs can have unintended effects. Most promotion programs must change consumer behavior to attain their objectives and may make consumers better off or worse off. Promotions may spur producers to improve quality and reliability, thereby increasing their marketing management performance. Promotions benefit promotion managers, advertising agencies and marketing researchers. Promotions may provide direct benefits to distributors and processors and may affect the value of advertising for processors' brands. Finally, promotions may affect the level of government spending.

On Commodity Producers

Commodity promotion programs use a variety of funding mechanisms, as indicated in Pamphlet 2. Typically, farmers pay for commodity promotions and are the intended beneficiaries, but not all intended economic impacts actually occur.

Most promotion programs attempt to increase both the market price and quantity of commodity sales with the goal of increasing revenues to farmers, but shifts in consumer demand may not translate into shifts in commodity demand.

For example, if the government purchases surplus products to maintain a minimum price, the consumer demand shift may result in private buyers replacing government purchases. In this case, producers will neither sell more nor necessarily receive higher prices. The cost of the promotion just adds to their costs and reduces their net revenues. Even without economic benefits. however, producers may get political benefits since decreased government purchases may enable the government to maintain a higher support price for a longer period. However, it is difficult to put a value on these political benefits.

Another difference between actual and intended effects occurs when producers increase their output in response to higher prices generated by promotion. The increased supply lowers the market price and eventually farmer profits may just cover their production and promotion costs. In situations in which no supply controls exist, farmers as a group will not be able to maintain higher net revenues after paying for the promotion than they would have without the promotion. Net revenue is the same after the promotion but the quantity sold and market-clearing price are higher. For this reason, short-run promotions will be more beneficial than promotions that continue for many years in markets without supply and entry controls.

By enabling farmers as a group to sell more at the same or higher prices, promotion programs may enable some farmers to stay in business who would otherwise have to produce other commodities or find off-farm employment. If the marginal producers left the market, supply would likely fall and financially healthy farmers would receive a higher price, even after deducting promotion assessments. So, promotions that keep marginal producers in business force financially healthy farmers to subsidize distressed farmers. While promotions may slow or prevent farmers from exiting some sectors of farming, the burden of that policy may fall disproportionately on competing producers or on consumers of the commodity who pay higher prices.

Commodity promotion programs may also help stabilize farm prices, quantities or revenues. If promotions reduce the responsiveness of commodity demand to changes in price, they may increase market price responses to changes in supply and decrease the swings in farmers' revenues. Such a change will benefit farmers but may hurt consumers. Alternatively, promotion programs could be timed to increase demand in seasons or years when supplies are abundant or demand is weak. But promotion managers may be motivated to run promotions to coincide with and build on periods of naturally occurring high demand.

On Marketing Intermediaries

Commodity producers are at one end of the vertically integrated food and fiber

system and consumers are at the other. Producers sell most commodities to first handlers for processing or resale to processors. Wholesalers buy fresh and processed goods and sell them to retailers who sell to consumers. Although some commodities may skip one or more of these steps, some progress through independent intermediaries is typical. Pamphlet 1 summarizes the marketing management implications of producers' position in the marketing channel.

Producers benefit from commodity promotion only if (1) their promotion changes consumer behavior and (2) the benefits are passed on by the middlemen in the marketing chain. If processors or distributors have market power, they may respond to increased consumer demand by raising the retail price of the consumer good. In that case the processor's or distributor's profits would increase, but they may sell less of the commodity to consumers and buy less from producers of the commodity than they would have if they had kept the retail price lower. Therefore, commodity promotion programs generally increase commodity demand more when intermediaries have less market power, that is, when the entire vertical system is competitive.

The impact of commodity promotions on the structure of intermediate markets influences whether a promotion has the desired effect. Generic promotion may increase leading processors' market power. If processors' brand advertising is enhanced when it piggybacks on generic promotions, it may increase brand advertising effectiveness or market share. If market power results in higher prices, the commodity promotion's impact on derived demand for the commodity may be reduced. On the other hand, generic promotion may reduce the effectiveness of brand advertising by emphasizing that the product is an undifferentiated commodity.

A promotion program may have to benefit processors, distributors and retailers because the program's success requires their cooperation. For example, Wisconsin dairy farmers cannot successfully differentiate Wisconsin cheese if processors and retailers do not identify the origin of the cheese they sell. Obtaining the cooperation of mar-

ket intermediaries is an important cost in some commodity promotions.

Regional commodity groups may have an additional motive for benefitting intermediaries. By differentiating local products from those made in other regions, regional or state commodity promotions attempt to increase the region's share of commodity sales rather than, or in addition to expanding total demand for the commodity. Regional commodity promotions are often part of broader development efforts designed to keep or entice local processors so that farmer producers will have convenient outlets for their commodity in the future.

On Consumers

On the opposite end of the marketing chain from producers are consumers.

Two broad types of consumer promotion exist: those that inform or educate consumers and those that persuade them. Informational and educational promotions enable consumers to make decisions based on increased knowledge. Persuasive promotions, however, attempt to convince consumers that the product has attributes that are desirable. Consumer welfare may or may not be improved depending on the real value of the attributes.

A negative aspect of promotional programs is that they increase the cost of food, making some consumers pay higher prices for food they would have purchased anyway. Others buy more of the product because they think, as a result of the promotion, that the food has more value. The net welfare impacts of promotions on consumers as a group are, therefore, difficult to determine. They depend on the content, form and costs of a particular promotional effort.

If the quantity purchased increases because of the promotion, if the promotional effort is informative and if consumers who would have purchased the product anyway benefit from the promotion, then the promotion benefits consumers as a group. Not all promotions that benefit producers do all of these things.

On Sales of Other Products

Commodity promotions also can have impacts on competing products. Promotions for milk and orange juice, for example, may offset promotions for soft drinks, competing products that are the subject of brand advertising financed by a few large manufacturers. Although no single agricultural commodity producer can hope to profit by independently advertising, jointly promoting a commodity may recapture sales lost to competing advertised products.

A commodity promotional program that increases demand for an agricultural commodity will decrease demand for substitute products and increase demand for complements. Successful promotions for beef will probably reduce demand for pork, chicken and lamb, but may increase demand for potatoes, hamburger buns and steak sauce.

Frequently, the response of producers of one commodity to promotions of competing commodities has been to start their own promotion program. Competing promotions among commodity groups may reduce the effectiveness of all programs. Consumers have a limited budget and stomach capacity. Individual commodity groups may not be the best organizations to determine optimal promotion strategies from the public perspective. Authorizing agencies should consider commodity promo-

tion programs in the context of impacts on other market participants.

Summary

This pamphlet only begins to illustrate the complex economic forces that motivate and result from commodity promotion programs. Each of the economic impacts needs to be measured and incorporated into the decision-making process of the particular commodity promotion program. Economic analysis helps uncover the important questions and illustrate why careful evaluation of commodity promotion programs is valuable to producers, marketing firms, consumers, public oversight agencies and policy makers.

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International Programs

Henry W. Kinnucan, Auburn University Gary W. Williams, Iowa State University

The output of about one of every three acres of U.S. land is currently consumed in foreign countries. Efforts to promote foreign consumption of U.S.-produced agricultural commodities are an important component of overall commodity promotion activities. A number of government programs are designed to boost U.S. exports in one of these two ways: 1) developing foreign markets and 2) enhancing export marketing efficiency.

Government foreign market development for specific commodities focuses on the Cooperator Program, the Export Incentive Program (EIP), and the Targeted Export Assistance (TEA) Program, all operated by the Foreign Agricultural Service (FAS) of the U.S. Department of Agriculture. Improved efficiency of export marketing is the responsibility of the FAS Agricultural Information and Marketing Service (AIMS).

Foreign Market Development Programs

Cooperator Program

The FAS Cooperator Program was authorized in 1954 by federal legislation (PL 480) and accounts for 95 percent of government expenditures on foreign market development. The program funds three general types of activities: trade servicing, technical assistance and consumer promotion.

Trade servicing activities are specifically intended to facilitate or expand U.S. agricultural exports. They include bringing study teams from foreign countries to the United States to learn about U.S. production capacity and reliability as a supplier of agricultural commodities; issuing trade press announcements; hosting trade conferences; advertising in foreign trade periodicals; distributing promotional material to foreign food buyers; and other trade-related promotional activities.

Technical assistance programs seek to stimulate growth in the long-term demand for U.S. exports by pinpointing how U.S. commodities can be effectively utilized in the production and/or selling activities of the foreign buyer. Assistance to actual or potential foreign buyers includes feeding trials and demonstrations; animal nutrition seminars; product development research; short courses by U.S. experts on feed technology; and general nutrition seminars.

Consumer promotion can be either generic or identified, but generic promotion is intended to foster the use of particular raw agricultural commodities without identifying them by name. For example, generic promotion of soybeans may consist of margarine and tofu sales campaigns and consumer education seminars in Japan. Identified promotion activities, on the other hand, attempt to enhance demand for a specific agricultural commodity by making direct reference to it in the promotion campaign. Identified promotion of soybean oil might include baking and cooking seminars in Japan to illustrate product quality and versatility. Branded advertising, which attempts to enhance demand through product differentiation, is outside the purview of the Cooperator Program but is included in the Export Incentive Program discussed below.

Recipients of FAS Cooperator funds tend to be nonprofit U.S. agricultural trade or commodity groups that have industrywide or nationwide membership and scope. Examples include the American Soybean Association, U.S. Meat Export Federation, the Wine Institute and the Catfish Farmers of America. Funds are obtained by submitting to the FAS a marketing plan detailing how the group intends to use the funds. If FAS approves the marketing plan, the commodity group is expected to share in the cost of implementing the plan; hence, the term The Cooperator "cooperator program." Program provides an added incentive for commodity groups to support voluntary or mandatory industry check-offs that can be augmented with FAS funds.

Export Incentive Program

The Export Incentive Program (EIP) was authorized by the same legislation (PL 480) as the Cooperator Program. The EIP provides market development funds in cases in which the FAS has determined that a Cooperator Program is infeasible or branded promotion would be more effective. Funds are usually limited to direct promotion expenses such as consumer advertising, point-of-sale demonstrations, public relations, press servicing activities and participation in trade-only trade fairs and exhibits. Participation in the EIP is generally limited to private U.S. firms or agricultural cooperatives selling products under a registered trademark (e.g., Dole and Sunkist). The EIP is a matching program that reimburses participants no more than 50 percent of approved foreign promotion expenses. The extent of federal cost sharing is tied to the participant's performance as specified in the agreement with FAS. Export Incentive Program agreements typically run three years. Relative to the Cooperator Program, the EIP operates on a much smaller scale. In 1985, FAS had 47 contracts under the Cooperator Program but only 16 contracts under the EIP. An example of an EIP program is branded promotion of California almonds in Japan through consumer media advertising, point-of-sale demonstrations and trade fair participation. In 1986 the EIP accounted for less than 5 percent of total FAS expenditures on export market development projects.

Targeted Export Assistance

A relatively new federal program that encourages the development of export markets for U.S. agricultural commodities is Targeted Export Assistance (TEA). Enacted as part of the 1985 farm bill, TEA provides

export promotion assistance to U.S. commodities injured by unfair foreign trade practices. The essential differences between TEA and the EIP or Cooperator programs have to do with duration and eligibility. The TEA Program has a legislative life of five years and will terminate in 1990. Eligibility is limited to commodity sectors in which exports have been adversley affected by subsidies, import quotas or other "unfair" foreign trade practices and in which the affected commodity is in adequate domestic supply. Programs funded with TEA money may be directed toward markets or countries guilty of unfair trade practices or at alternate markets intended to offset lost exports. Funding of TEA for the fiscal years 1986-88 is slated at not less than \$110 million per year (about three times the 1985 FAS expenditures on all market development activities). Thereafter, in each of the ensuing fiscal years 1989 and 1990, funding is slated to nearly triple to not less than \$325 million in CCC resources. commodity certificates, or cash. However, the Secretary of Agriculture has, at least for the time being, limited reimbursement to certificates only.

Information Service

Information is essential to expanding foreign markets for U.S. products. Relevant, accurate and timely information about foreign market conditions, export marketing techniques and regulations, export opportunities and related items can lower the costs of establishing and maintaining trade links with foreign buyers. The resulting improved marketing efficiency permits a greater flow of commodities to foreign buyers than would be possible otherwise.

Operated under the auspices of the FAS, the Agricultural Information and Marketing Service (AIMS) helps U.S. companies introduce their products to foreign markets or expands present overseas markets by providing information through six types of services. These services, available on a subscription basis, are: Trade Leads, Product Publicity, Foreign Importer Listings, International Marketing Profiles, Executive Export Services and the Buyer Alert Program.

Trade Leads

Trade leads provide information about foreign buyers' purchasing needs gleaned from reports filed daily by FAS agricultural counselors, attaches and trade officers located worldwide. These daily reports contain detailed information on product specification, quantities, bid requirements, telex/cable contact points and delivery deadlines necessary for a U.S. exporter to successfully pursue the trade lead.

Product Publicity

U.S. companies can advertise their products at no charge in a monthly FAS newsletter called *Contacts for U.S. Agricultural Prod-*

ucts. Translated into appropriate languages, the newsletter is distributed worldwide to FAS agricultural counselors, attaches and trade officers for distribution to prospective foreign buyers. The newsletter consists of 100-word descriptions of products submitted by U.S. firms. The March 1986 issue lists 35 products including New York beer, North Carolina quail, and Florida stone crab claws.

Foreign Importer Listing

This listing of firms in foreign countries interested in importing specific U.S. agricultural commodities or foodstuffs includes names, addresses and telephone or telex numbers of prospective foreign buyers. FAS generates these listings from foreign data bases and foreign companies that have requested U.S. products through the Trade Lead Service in the past three years. Lists tailored to the particular information needs of the U.S. exporter such as all Japanese wheat importers or poultry importers worldwide, also are available for a nominal fee.

International Marketing Profiles

Periodic publication of studies of the export potential of selected U.S. agricultural commodities into particular foreign markets is a new FAS service. These studies, presenting detailed statistics on agricultural trade and related activities, have either a country or a commodity focus. Country marketing profiles describe agricultural marketing possibilities and constraints in particular countries. An example is the 1986 study by M. A. Trueblood and N. R. Horenstein entitled "The Ivory Coast: An Export Market Profile." Product marketing profiles provide trade information on 30 selected groups of agricultural products, principally in the high-value or value-added product categories. Through relevant statistical indicators, marketing profiles attempt to identify leading foreign markets, fast-growing markets and the principal U.S. competitors for specific products. In addition to the product and country marketing profiles, the FAS can produce custom marketing profiles upon request. There is a nominal fee for both standard and custom marketing profiles.

Executive Export Service

Designed to provide the U.S. exporter comprehensive information about relevant export markets, the Executive Export Service contains three components: 1) a one-year subscription to Export Briefs, a weekly report containing all export leads processed each week by the FAS; 2) one International Marketing Profile of the subscriber's choice; and 3) a one-year subscription to Foreign Agriculture, the USDA's monthly trade magazine.

Buyer Alert Program

In an electronic version of the Product Publicity Program, the AIMS staff in Washington,

D.C., transmits via high-speed telecommunications sales announcements of featured products to interested overseas buyers. These announcements provide prospective buyers with a brief description of the product, the price and information about contacting the U.S. supplier. Buyer Alert reinforces the information provided in *Contacts*, the chief vehicle for implementing the Product Publicity Program. The principal advantage of the Buyer Alert is timeliness since sales announcements are transmitted on a weekly basis. Participation is free.

Program Funding Levels and Geographic Targets

FAS expenditures for information service programs are minor relative to expenditures for market development programs. Therefore, discussion of funding will focus on the Cooperator, EIP and TEA programs. Funds made available under TEA enhance the Cooperator and EIP programs. However, TEA funds did not become available until the 1986 fiscal year and hence are not yet reflected in current statistics on Cooperator or EIP expenditures. As mentioned previously, the Cooperator Program is the real mainstay of U.S. government export promotion programs, receiving 95 percent of funds compared to only 5 percent for EIP in 1986. Consequently, a description of the Cooperator Program alone captures the essence of U.S. government and related expenditures on export promotion. Funding levels with respect to the Cooperator Program are discussed in terms of total budget, government share, changes in real funding levels over time, commodity distribution of funds and geographic targets.

Total Program Expenditures

In 1986, expenditures on U.S. government subsidized export promotion of agricultural commodities amounted to \$120 million, of which the government contributed \$42 million. Historically, the FAS apparently has attempted to leverage its Cooperator funds by obtaining matching contributions from both the U.S.-based cooperator and the affected foreign third party. FAS has come closer to acheiving this goal in recent years (Table 1). Total program budgets grew modestly between 1975 and 1980 but then growth accelerated, resulting in a 43.5 percent growth in real budgets over the 10-year period 1975-85. In 1985 the Cooperator program had a unified budget of \$34.3 million (1967 dollars) consisting of three roughly equal components: 1) FAS (U.S. government) expenditures, 2) expenditures by U.S.-based cooperators, and 3) contributions by foreign third parties (Table 1). Increased contributions by cooperators contributed the most to the expanded budget, with government contributions not far behind. Funds provided by foreign third parties grew at a relatively modest real rate of 9.5 percent between 1975-85.

Table 1. FAS and Cooperator Expenditures for Export Promotion, Selected
Years 1975-85

	Contributor funds					
Fiscal years	FAS expenditure ^a	U.Sbased cooperator	Foreign third parties	Total program		
	(Deflated 1967 dollars in millions)					
1975	7.2	6.2	10.5	23.9		
1980	7.6	8.0	11.2	26.8		
1985	11.8	11.8 11.0 11.5 34.3				
Percent change						
1975-85	59.7	77.4	9.5	43.5		

Includes Export Incentive Program funds which are used to promote high value and value-added products in foreign markets.

Adapted from U.S. General Accounting Office, Report No. NSIAD-87-89, International Trade, March 1987, p. 54.

Commodity Distribution

Of the \$111.7 million spent under the Cooperator Program in 1986 that could be identified clearly on a commodity basis, 31.7 percent went to export promotion of grains and feed products (Table 2). The next largest expenditure categories were oilseeds and products (24.1 percent), livestock and products (14.4 percent), cotton (11.4 percent), and fruits and vegetables (11.5 percent). Export promotion expenditures for dairy and poultry accounted for only 3.6 percent of the 1986 budget, a relatively small amount given the importance of these commodities to the U.S. agricultural sector. Other commodity groups receiving less than 5 percent of the 1986 budget were forest products and tobacco and seeds.

tively, of total expenditures in 1986 (Table 3). However, with the exception of Asia, the shares going to these countries have declined over time with Eastern Europe, the Near East, the Soviet Union and especially African countries receiving larger shares. Expenditures on export promotion in the Soviet Union, an important U.S. trade partners for several major grains, accounted for less than 1 percent of total expenditures in 1986.

Evaluation Efforts

Despite their long history (since 1956) and potential for increasing demand for U.S. agricultural commodities, few attempts have been made to evaluate the effectiveness of U.S. export promotion subsidy programs.

Table 2. Commodity Breakdown of U.S. Sponsored Export Promotion Expenditures, Fiscal Year 1986^a

		· · · · · · · · · · · · · · · · · · ·
Commodity group	Total expenditures	Commodity share
The same and the s	(Million dollars)	(Percent)
_		4 9 111
Cotton	12.7	11.4
Dairy and poultry	4,0	3.6
Oilseeds and products	26.9	24.1
Fruits and vegetables	12.9	11.5
Grain and feed	35.4	31.7
Livestock and products	16.1	14.4
Forest products	2.6	2.3
Tobacco and seeds	1,1	1.0
Total	111.7	100.0

Excludes funds allocated generically to groups representing regional interests in the United States.

Adapted from U.S. General Accounting Office, Report No. NSIAD-87-89, International Trade, March 1987, pp. 50-52.

Geographic Targets

Western Europe, Asia excluding Japan, and Japan are the major targets of U.S. subsidized export promotion efforts, accounting for 24.1, 26.5, and 17.6 percent, respec-

The published studies that exist (one for soybeans, one for wheat, one for orange juice into European markets and one for poultry, apples and tobacco) suggest that substantial returns accrue not only to the U.S. government but also to cooperator and

foreign third party groups. For example, the soybean study indicates that in 1976 the U.S. shares of world soybean meal and oil markets were 6 percent and 10 percent higher, respectively, than would have been the case without market development expenditures. The average net return to soybean growers is estimated to have been more than \$14 per market development dollar spent between 1970 and 1980. The other studies show similar results.

Studies concerning the returns to U.S. investments in developing foreign markets for U.S.-produced agricultural commodities are useful in evaluating whether such investments have been worthwhile. They provide little guidance, however, for efficiently allocating market development funds among commodities, geographic targets or specific market development activities. Because countries differ in their responsiveness to market signals and commodities differ in their promotability, appropriate and effective market development strategies are likely to differ significantly by commodity. More detailed analysis of foreign market development programs could provide an improved basis for decisions about fund allocation, program management and market development strategies. This, in turn, would lead to a more effective use of taxpayer and industry resources.

Evaluating foreign market development activities ordinarily is more complicated than evaluating domestic promotion efforts because trade-related variables like exchange rates and export/import policies must be considered along with the conventional economic variables affecting supply and demand for the promoted commodity. Data describing changes in consumption by foreign consumers of the promoted product may be lacking, inadequate or inappropriate. Finally, some foreign market development programs are too small to justify the expense of evaluation. Nonetheless, pressures to conduct cost/benefit analyses likely will mount as the programs increase in size and scope.

The Advantages and Challenge of Foreign Market Development

Promoting foreign consumption of U.S. agriculture commodities offers several advantages as a means to enhance prices and incomes in the U.S. agricultural sector. It also presents a challenge. First, generic promotion of a particular commodity, such as beef, in the domestic market may do little more than increase beef consumption at the expense of other meat such as pork and chicken. The net effect on aggregate farm income, therefore, is not clear. Promotion of consumption in foreign markets, however, is more likely to have a net positive impact on U.S. farm income because increased foreign consumption of U.S. beef, for example,

Table 3. Geographic Targets of U.S. Export Promotion Expenditures by FAS and Cooperators, a Selected Years 1982-86

•		Year	
Area	1982	1984	1986
		(Percent)	· · · · · · · · · · · · · · · · · · ·
Japan	19.0	18.1	17.6
Western Europe	35.5	27.1	24.1
Asia ^b	25.2	26.4	26.5
Eastern Europe	1.7	2.0	2.5
Soviet Union	c	.4	.9
Latin America	9.9	9.6	10.0
Africa	2.0	9.1	10.5
Near East	4.3	6.4	7,4
Other	2.4	.9	.5
Total	100.0	100.0	100.0

export market development funds have been spent on such generic promotions since the inception of the USDA programs.

Successfully boosting the U.S. share of beef consumed in foreign countries would guarantee that U.S. producers benefit the most from market development efforts. Relatively little effort, however, has been made to differentiate U.S. from foreign-produced agricultural commodities in foreign market development programs. Greater emphasis of funding on "branded" promotion activities could build foreign demand for U.S. agricultural commodities by differentiating U.S. products from those of its foreign competitors.

Adapted from U.S. General Accounting Office, Report No. NSIAD-87-89, International Trade, March 1987, p. 53.

may result in a reduction in the consumption of beef from other sources rather than reducing consumption of competing U.S.-produced meats. In other instances, foreign promotion may result in dietary shifts away from traditional foods produced outside the U.S. And even though increased imports of U.S. beef by a country may reduce their imports of U.S. feedgrains, the domestic U.S demand for feedgrains will be stimulated to produce the additional beef exports. At the same time, shifting the feeding of livestock from foreign countries back to the U.S. enables the U.S. agricultural sector to capture the value-added in livestock feeding.

Second, the U.S. market development program helps mitigate the negative effects of a strong dollar. Although a strong dollar reduces the purchasing power of foreign currencies, thus constraining export demand for U.S. agricultural commodities; it boosts the purchasing power of each market development dollar spent in foreign markets.

The challenge for the market development program is to focus funds on activities that are most likely to maintain or boost the U.S. share of foreign consumption. In general, the U.S. export demand for a particular commodity can be enhanced by three types of promotion activities: 1) those designed to increase the foreign demand for the general class of products to which the commodity belongs, 2) those intended to boost the share of the commodity in the foreign consumption of the products in the same general class, and 3) those focused directly on increasing U.S. market share. For example, U.S. exports of beef can be stimulated by an increased demand for meat in foreign countries. United States export promotion that leads to appropriate changes in tastes and preferences in foreign markets can stimulate an increase in the demand for meat. Although U.S. beef producers are likely to benefit from such efforts, beef producers in the targeted country as well as in other beef exporting countries also can benefit. Most

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Sources of Information about FAS Programs

The export promotion subsidy and information service programs described in this pamphlet are administered by the Foreign Agricultural Service (FAS) of the U.S. Department of Agriculture. That office publishes information leaflets and brochures describing agency services available to current and prospective exporters of U.S. agricultural commodities. Those interested in learning more about participation in the Cooperator, Targeted Export Assistance and Export Incentive programs are encouraged to contact the FAS directly at the following address:

Foreign Agricultural Service Information Division USDA South Building, Room 4644 Washington, DC 20250 (202) 447-5521

Does not include International Institute of Cotton, Export Incentive Program, Targeted Export Assistance, and FAS projects.

b Excludes Japan.

c Less than one-tenth of one percent.



Program Evaluation

Olan D. Forker and Donald J. Liu, Cornell University

Commodity promotion programs should be evaluated for two reasons. First, there is the interest of the commodity group providing the funds. Second, there is the public interest. The authorities for both domestic and international promotions are provided by the government, thus the programs must be accountable to the public through the responsible government agency.

To serve the interests of the commodity group, it is not enough for the promotion program simply to have a positive impact on sales. In order for returns on investment in promotion to be positive, the value of the increased sales must outweigh the costs of the program. Furthermore, the commodity group must compare various combinations of promotion strategies and choose the ones that maximize returns. This means that commodity groups need information to support the following decisions: (1) determining the most appropriate assessment level for promotion funds, (2) allocating available funds across different promotion activities such as advertising, nutrition education, and new product development and across different media such as television, radio, and newspaper, and (3) choosing a program design and an implementation procedure that maximize program impact. Evaluation research must be designed to provide this needed information.

The public interest is served if the promotion program provides consumers (taxpayers) accurate information relevant to their consumption decisions. Information is necessary for markets to

operate efficiently. Information about price, quality, and other product attributes allows consumers to choose the product mix they most prefer given their limited budget. In turn, when information increases the buyer's range of choices, sellers have a greater incentive to compete. Without such information, the incentive to compete on price and quality is weakened, and consumer welfare is reduced.

There are also national and international considerations in evaluating the public impact of commodity promotion. Domestic generic promotion programs for different commodities may create cross-commodity effects (see Pamphlet 3), and international promotion programs may affect the domestic farm and consumer sectors (see Pamphlet 5). Thus, policymakers have an interest in assessing the aggregate effect of domestic promotion as well as the impact of international promotion.

This pamphlet focuses on the economic evaluation of the following commodity group concerns: sales impact, revenue impact (i.e., returns on investment), and the use of evaluation results in promotion management. Issues relating to cross-commodity trade-offs are also addressed briefly. The pamphlet does not deal with such issues as consumer information and international promotion programs. The former involves the accuracy of promotional claims, an area regulated by the Federal Trade Commission and outside the scope of this pamphlet, while the latter is covered in Pamphlet 5.

Sales Impact Evaluation

Conventional views on advertising and promotion hold that the effects occur in stages. First, consumer awareness of the product is enhanced, followed by a change in consumer attitudes toward the product. Finally, consumers increase their purchases of the product. Given this sequence, the effectiveness of advertising and promotion efforts can be evaluated by measuring changes in the three areas: awareness, attitudes, and consumption. Instead of the general implications that would emerge from analyzing the final consumption effect of a promotion program, studying the three parts of the evaluation process separately results in more specific guidance about how to improve the program.

Awareness

"Tracking studies" are used to measure or track changes in the product awareness of consumers that result from advertising efforts. Typically, a commodity promotion organization employs a market research company to survey the target population. The goal of the survey is to determine whether or not and to what extent consumers have become aware of the promotion effort and the promoted product. The persons being interviewed are asked whether they have seen or heard and remembered recent advertisements. The survey results provide evidence of whether or not the advertisement was effective in improving consumer awareness of the product. The market research firm repeats the survey

periodically and uses changes in awareness over time to determine whether the advertisement should be continued or a new "theme" pursued.

Attitudes

Tracking studies are also used to measure changes in attitudes toward the product being promoted or toward competing products. The persons interviewed are asked for their views about product attributes. Attributes of interest might be flavor, color, texture, nutrient content, or price, depending on the product under investigation. The results are used to help decide how effective the advertising effort has been in bringing about the desired changes in consumer attitudes. The results also alert the commodity group to changes in consumer attitude that might hurt sales. In turn, the insight about attitudes and attitudinal changes can lead to changes in advertisement design and promotion campaigns.

Consumption

There are two approaches to determining the net effect of promotion on sales. One is the use of econometric techniques that measure relationships between sales and promotion, while filtering out the simultaneous or lagged effects of various other factors such as prices and income. An alternative approach consists of using an experimental design in which one group of individuals is exposed to the promotion while the other is not. Controlling for other factors, the two groups are compared to determine a net relationship between sales and promotion. Regardless of the approach, researchers need data on both promotion and consumption to evaluate the relationship between the two. Also, since promotion is not the only influence on consumer purchases, researchers need data to capture the impact of other variables on consumption. The estimated relationship between promotion and consumption can be used to simulate the sales effectiveness of alternative promotion programs.

Consumption Data

Good estimates of consumption volume are hard to obtain. An ideal measure of sales would include the various forms in which a product is consumed. In the case of milk, measures would include the various forms of fluid milk and

manufactured dairy products. In the case of pork, it would include the various cuts of meat. For apples, separate measures of fresh sales and processed volume would be appropriate. The ideal measure would also take into account all situations under which consumers might consume the product, such as athome or away-from-home. Monthly data on sales should be collected in order to capture and separate the immediate and carryover effects. Research indicates that quarterly or annual data do not adequately account for the carryover effect of promotion on consumption.

The U.S. Department of Agriculture publishes farm-level production and manufactured product volume data for agricultural commodities that researchers can use to derive consumption data. However, because of storage opportunities beyond those actually measured, derived consumption data are not very reliable reflections of actual consumption. Therefore, it is necessary for each commodity promotion organization to obtain a measure of sales through either a consumer level survey such as a diary panel or a store audit.

Consumer diary panel surveys measure purchases by households. Several market research companies operate diary panels in which individuals are asked to keep records or a diary of household purchases for a specified period, usually two weeks. These diaries provide an estimate of at-home consumption of food but have the drawback of ignoring away-from-home consumption volume. The extent to which the diary panel provides an accurate measure of at-home consumption for the total population in question depends on the size and the representativeness of the panel. Also, the panel can provide an estimate of the total consumption volume only if it maintains away-fromhome consumption records, or if some adjustments can be made to estimate consumption away-from-home.

Alternatively, food store audits can be used to obtain volume of sales. Two types of store audits are common. The traditional type involves a personal visit by representatives of the market research company to each store in the sample. The representative obtains data on purchases and sales from each

store's accounting and inventory records. Based on these, an estimate of sales on specific products is calculated. A relatively new approach to food store audits is to purchase scanner data from the stores. The scanner data provide the actual quantity and price of each item as it goes through the check-out counter. Both of these methods can provide reasonably accurate estimates of sales providing the size and type of stores selected are representative. However, as in the diary panel, the volume measure accounts only for food to be consumed at home. To obtain an estimate of the away-from-home portion of the market, a sample of eating establishments could be audited.

Promotion Data

The advertising effort can be measured in several ways. The most common measurement has been dollars expended, adjusted by a media cost index to remove the effects of inflation. Since the purchasing power of the advertising dollars also depends on the relative bargaining position between those who place the ad and those who air the ad. dollar expenditures are not always a reliable measure of the "effective" advertising effort. Alternatively, the effort measure can be expressed in terms of gross rating points, which measure the proportion of viewers that are reached by a particular media program during a specific period of time. The difference in measuring advertising in dollars as opposed to gross rating points can be compared to the difference in measuring the consumption of apples by the dollars expended as opposed to the number of apples purchased. The gross rating points measure of the advertising effort is usually preferable when it is available.

In addition to the data on advertising, information about special promotional activities such as couponing and point-of-purchase display is needed. Since these promotion activities complement media advertising, a failure to account for them will result in a biased estimate of the sales impact of the mainstream advertising.

Data On Other Factors

Many other factors affect the sales of a particular commodity: the price of the commodity, the price of competing products, the amount of brand advertising for the product, the amount of generic and brand advertising of competing products, changes in the consuming population, and random events such as news releases about product tampering and nutritional concerns. Variables such as these must be measured and incorporated into an evaluation model to determine the net sales effect of an advertising program.

Model Simulation

A model that reflects the relationship between consumption and promotion is the starting point for the evaluation process. Relationships expressed in the model are estimated using econometric techniques. In turn, the estimates are used to simulate the sales response to promotion under varying hypothetical promotion patterns. The simulation is designed to answer questions such as how sales might have been affected if no promotion or different expenditure levels had been advanced. Through such simulations, the impact of the promotion program on consumption can be quantified. Simulations can also be conducted to predict the likely sales impact of changing the level of expenditures in the future.

Revenue Impact

A positive sales impact does not necessarily imply that it pays to promote the product. The benefits of the program have to be carefully compared against the costs of the program. The costs include advertising and promotion expenditures as well as the expenses of program administration. The principal benefit is the difference between revenue (price times quantity) under the program and revenue without the promotion program.

If the promotion program generates positive returns, eventually producers will increase supplies. Thus, short-run gains may be eroded by long-term increases in supply of the commodity. Hence, in evaluating whether a program pays, it is important to consider both the short-run sales impact and the longer-term supply response.

Program Management

Even if the promotion program results in positive returns, the question of whether the performance of the program can be

improved remains. Good performance requires good management. It is useful to consider three different types of management decisions.

The Appropriate Assessment

For most promotion programs, the initial level of assessment was determined through a political process. In some cases the mandatory level is based on experience of previous voluntary promotion organizations. But usually the decision is made with little knowledge of the possible impact of alternative levels of program activities. If a good model of the promotion-sales relationship is available, then the impact of alternative levels and combinations of program activities can be simulated to provide a prediction of the likely impact on sales. A systematic evaluation of alternative levels can provide information to help determine the most appropriate assessment level given some particular sales or revenue objective.

The Allocation of Funds

The economic law of diminishing returns says that as more and more resources are devoted to one activity, the additional returns from that activity will eventually decline and may become zero. Previous studies in generic dairy and generic citrus promotion indicate that the law applies to advertising as well (Figure 1). Hence, it is important to avoid "overallocating" promotion expenditures to any given program option. Empirical models of the promotion-consumption relationship for various program activities, if available, can be used to determine the expenditure level at which the marginal rates of return from additional expenditures are equal for each program option. This information will help determine how much money should be allocated to each program activity for the greatest possible impact from the amount of money available. The extent to which program activities can be compared depends on the extent to which empirical models have been developed. In the case of media advertising, for example, models should be developed to help in allocations across media (television, radio, newspaper, and billboard), across geographic market areas, across the different product forms (fluid milk vs. cheese, ham vs. pork chops, etc.), and across time.

Design and Implementation

Program managers need to decide the most appropriate theme and specific message to include in their promotion campaigns. An effective evaluation model can provide a measure of how well previous campaigns were received and a measure of their impacts on sales. This knowledge should provide insight into how successful different approaches have been. This historical insight, along with tracking information about how consumers view different product attributes, should help program managers design and implement future program strategies and activities. Empirical models provide an expectation of the likely impact of future programs. Fact comparisons can be made between the expected and actual sales levels to indicate how successful the programs were in achieving their goals.

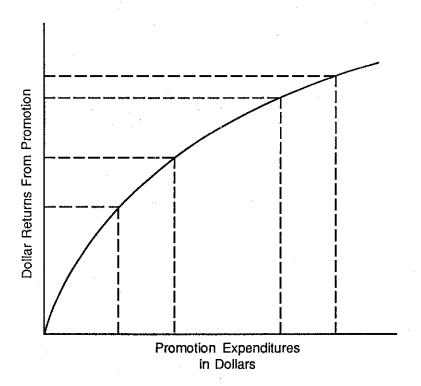
Finally, the empirical models, the tracking studies, and other information sources should be designed to provide a continuous feedback mechanism so that information is available on a timely basis to support decisions at the various levels. Assessment decisions will be made infrequently, perhaps every 3-5 years. Allocation decisions are more likely to be made annually. Some program design and implementation decisions are made annually while others are made more frequently.

Cross-Commodity Impacts

Increased levels of funding by several major competing commodities — namely beef, pork, and dairy — raise questions about the cross-commodity impact of promotional programs. Given limited consumer income, if one commodity is to increase its share of total food expenditures, it must do so at the expense of competing commodities. The resulting change in the structure of the food system affects not only commodity producers but also the consuming public.

To evaluate the cross-commodity impact, the models that relate sales and promotion should be global, rather than focus on a single commodity. A complete demand system should be developed to assess the sales impact on one commodity of the promotion by another commodity group, and vice versa. Since an individual industry is not likely

Figure 1: The Law of Diminishing Returns



to be interested in evaluating the impact of its promotion on the sales of competing commodities, the public sector has a role in initiating research, compiling promotion data on various industries, and providing an unbiased interpretation of the research results to policymakers.

Concluding Remarks

Evaluation research should be regarded as an integral part of the whole commodity promotion scheme. Promotion programs affect the public as tax-payers and as consumers. They also

affect producers through costs associated with assessment or through revenue due to promotion. Evaluation research results can be useful for tracking and evaluating promotion performance, diagnosing market changes, and making program allocation and implementation decisions.

Fortunately, some evaluation research has been conducted for several domestic commodity promotions. The Florida Citrus Commission, the United Dairy Industry Association, the New York Milk Promotion Board, and the National

Dairy Promotion and Research Board have all conducted or sponsored econometric studies and experimental design studies in the past. These studies have provided substantial insight into how and the extent to which advertising affects sales and consumption.

Unfortunately, only a small proportion of the programs actually being conducted have adequate measures of sales. And even where sales data are available, only a few of the programs are actually being evaluated so that empirical measures of the sales effect are generated. If the public interest and the farmer interests are to be appropriately and adequately served, the commodity promotion organizations and the responsible public agencies must insure that adequate data are generated and appropriate empirical models established, and objective research and analyses performed.

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