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Federal Marketing Orders and Federal Research and Promotion Programs: Background for 1995 Farm Legislation. By Steven A. Neff and Gerald E. Plato. Food and Consumer Economics Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 707.

Abstract

Federal marketing orders and Federal research and promotion programs are self-help programs proposed by agricultural commodity industries and authorized by Federal legislation. Marketing orders have proven a durable fixture in U.S. agricultural policy, especially for milk, fruits, vegetables, and specialty crops. Since 1980, however, 12 of the 47 Federal marketing orders for fruits, vegetables, and specialty crops have been terminated; 2 were added. New Federal research and promotion programs have begun; of the 18 operating in 1994, 14 were established since 1982. With budget limitations expected to constrain agricultural programs in the 1995 farm bill debate, these self-help programs are perhaps under less pressure than some others because they involve only administrative costs, much of which are reimbursed to the Government from assessments on producers, handlers, and importers. Issues with marketing orders include user fees to recover administrative costs, streamlining the rulemaking process, strengthening compliance and enforcement efforts, and resolving concerns of equitable treatment of all handlers within regulated commodity industries. Issues for research and promotion programs deal with governance of the programs and evaluation of their effectiveness.

Keywords: Marketing orders, research and promotion programs, checkoff programs, self-help programs, generic advertising, export promotion

Foreword

Congress will soon consider new farm legislation to replace the Food, Agriculture, Conservation, and Trade Act of 1990. In preparation for these deliberations, the U.S. Department of Agriculture and other groups are studying previous legislation and current situations to see what lessons can be learned that are applicable in the 1990's and beyond. This report marks the first time the Economic Research Service (ERS) has prepared a farm bill background paper on Federal marketing orders and Federal research and promotion programs. It is one of a series of updated and new ERS background papers for farm legislation discussions. These reports summarize the experiences with various farm programs and the key characteristics of the commodities and industries that produce them. For more information, see the References list at the end of the text.

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Summary

The farm legislation debates this year are likely to address a number of issues closely related to marketing orders and promotion programs.

Marketing orders and research/promotion programs (the latter also known as checkoffs) are self-help efforts proposed by farm commodity industries and authorized by Federal legislation. The programs are approved by the commodity groups and are largely self-governed and self-financed.

The current agricultural policy environment of restrictive budgets favors policies that require little net cost to the Federal Government. Marketing orders carry modest administrative costs. Promotion programs are funded by assessments on the industries. Marketing orders and promotion programs can increase returns to farmers without cost to the Government. Marketing orders may be more broadly applicable across the spectrum of commodities.

The structure of marketing orders (other than for milk) reflects the agricultural policy environment of the 1930's, which favored direct guidance of markets by controlling quantities marketed. However, few of today's marketing orders use the quantity control provisions that are authorized. Over the years, 12 Federal marketing orders have been terminated at the behest of the industry participants or the Secretary of Agriculture.

Marketing-order issues that Congress might address this year include pricing reforms of milk marketing orders and streamlining of the rulemaking and compliance processes. (Federal milk marketing orders are treated in this report only to illustrate the breadth of marketing orders but are dealt with at greater length in a companion report on dairy policies, AER-705. Export promotion efforts are covered in a report on export programs, AER-716.)

Some policymakers have suggested that a general framework might be established so that new promotion programs could be initiated under existing rules of USDA's Agricultural Marketing Service (AMS) rather than passing separate legislation for each commodity program.

Questions have been raised about whether marketing orders act against the interests of consumers, but the literature does not indicate that consumer interests on the whole have been hurt. It has been suggested that marketing orders could play a larger role in U.S. agricultural policy, perhaps supplementing or substituting for major commodity programs.

Marketing orders seem best applied to commodities grown by a limited number of producers in a compact geographic area. Milk marketing orders are the exception, but they demonstrate the difficulty in administering marketing orders on a large scale. Perhaps regulations could be tailored to particular commodity production and marketing conditions.

The promotion programs, which aim to increase sales through advertising, promotion, product research, and market research, have proliferated since the mid-1980's. The research and promotion programs have been questioned as to the effectiveness of generic advertising, but the research evidence is mixed.

The positive effects of product research, consumer research, and export market development, not to be confused with export subsidization, are more widely acknowledged.

ERS has not prepared a farm bill background paper on marketing orders and promotion programs in the past, largely because the authorizing legislation for marketing orders lies not in the omnibus farm bills but with the Agricultural Marketing Agreement Act of 1937 (or with separate legislation in the case of research and promotion programs).

But with the appearance of additional farm-bill-related issues in recent years, marketing orders and promotion programs are likely to be more prominent in the 1995 farm legislation debates.

Federal Marketing Orders and Federal Research and Promotion Programs

Background for 1995 Farm Legislation

Steven A. Neff and Gerald E. Plato

Introduction

Marketing orders and promotion programs (also known as research and promotion programs or checkoff programs) are generally considered voluntary commodity programs because they are initiated and approved by commodity groups, they are self-governed within established rules (except for Federal milk orders), and they are mostly self-financed. There are two compelling reasons for this report:

(1) The policy environment of restrictive budgets in which the 1995 farm bill will be crafted favors policies that require little net cost to the Federal Government. Marketing orders and promotion programs are attractive in this environment because marketing orders carry modest administrative costs and promotion programs are funded by assessments on the industry. There have been periodic calls to evaluate the ability of marketing orders to supplement or even substitute for traditional farm programs (Shaffer, 1994). U.S. agricultural policy has long transferred income to producers through direct payments, import protection, legal price discrimination, and more recently through subsidizing exports. In this policy environment, several questions arise: If marketing orders and promotion programs can increase returns to farmers without cost to the Government, could they be applied more broadly across the spectrum of commodities? Do U.S. consumers or foreign interests lose when marketing orders help U.S. farmers? Is there potential for marketing orders and promotion programs to have a dynamic effect on the market that improves the welfare of all interests in the long run?

(2) While the authorization for Federal marketing orders and checkoff programs lies in other legislation, the 1995 farm bill may address a number of issues relating to marketing orders and promotion programs, including new research and promotion programs and longstanding dairy marketing questions. The 1985 and 1990 farm bills contained changes to existing programs and authorized new research and promotion programs. This report will not speculate in detail about any of a number of possible changes to marketing orders and promotion programs that may be considered in the farm bill. As background for the forthcoming debates, this report explains what the marketing order and promotion programs are authorized to do, what they actually do, and the rationale for their existence; the effects of these programs on producers, handlers, importers, consumers, government spending, and foreign interests; and the relationship of these programs to larger forces in agriculture, the U.S. Government, and the broader economy. The general questions that may be addressed in the 1995 farm bill debate are outlined in the final section.

The number of Federal marketing orders has declined. As prescribed in the authorizing legislation, the Secretary of Agriculture can terminate marketing orders, or, as is more common, industry participants initiate the process through a referendum. Not only are there fewer orders than in the past, but few of the current fruit and vegetable orders use the quantity control provisions that are authorized, in some cases because internal disagreements have arisen over restrictions on marketing when some producers wanted to expand their operations. In 1982, USDA set standards for the use of volume controls that fostered a shift of emphasis toward developing and maintaining markets rather than controlling markets through volume provisions. Volume controls have always been specifically prohibited in milk orders. Questions have been raised occasionally about whether the marketing orders act against the interests of consumers. However, the available literature (Jesse, 1981, for example) indicates that consumer interests on the whole have not been adversely affected.

Research and promotion programs have proliferated since the mid-1980's. The effectiveness of generic advertising, a key component of the programs, can be difficult to assess. The research evidence indicates that generic advertising increases sales (Sun and Blaylock, 1993, for example), but it is not clear whether the positive return from assessments equals or exceeds returns from investments in the farm business. The positive effects of product research, consumer research, and export market development, not to be confused with export subsidies, are more widely acknowledged.

This report necessarily does not address narrow questions of concern to only one or a few firms in individual orders, but instead presents a wealth of specific information in appendix tables that will serve as reference for particular commodities. Federal milk marketing orders are a special case in many respects and are treated in this report only to illustrate the breadth of marketing orders. Issues specific to Federal milk marketing orders are addressed in *Dairy: Background for 1995 Farm Legislation*, while export promotion efforts are discussed in *Export Programs: Background for 1995 Farm Legislation*. The glossary provides some explanation of selected terms.

Marketing Orders

Federal marketing orders are authorized by the Agricultural Marketing Agreement Act of 1937 (AMAA) to allow industry-initiated regulation of specified commodities. The AMAA authorizes marketing orders to accomplish specific purposes, as detailed in the legislation:

(1) create orderly marketing conditions to achieve parity prices to farmers;

(2) protect consumer interest by gradually moving prices toward parity and disallowing actions intended to maintain prices above parity;

(3) conduct production research, marketing research, and development projects; set container and pack requirements; establish minimum standards of quality and maturity; and maintain grading and inspection requirements; and

(4) promote an orderly flow of the supply of each marketing order commodity to market throughout its normal marketing season to avoid unreasonable fluctuations in supplies and prices (USDA, 1990, pp. 107-108).

Marketing orders are binding on all handlers in the geographic area covered by the order. They are distinguished from marketing agreements, which are binding only on signatories of the agreement. A Federal marketing order generally is initiated by handlers and producers; in the case of milk, this is usually through the producer cooperatives. The commodity must be on a list of commodities authorized by legislation to be considered for marketing orders, although amendments to the legislation have authorized more commodities than were originally specified.

To initiate a marketing order, industry members present a proposal to USDA. The proposal details, among other things, the marketing problem or problems that need to be solved and how the proposed program would help. The Secretary is responsible for seeing that each proposed marketing order serves the public interest as outlined by the statute. The AMAA requires a public hearing for all interested parties to offer comment on the provisions. If the Secretary approves the terms, a referendum is held, in which two-thirds (three-fourths in the case of California citrus) of the producers, or producers representing two-thirds of the volume produced in the proposed marketing order area, must vote to adopt the order. If an order is to be issued with a marketing agreement, handlers who have handled not less than 50 percent of the total volume of the commodity covered by the order must sign the marketing agreement. A Federal marketing order can be terminated (and some have been) through referendum and action by the Secretary, or the Secretary can unilaterally terminate an order when it is found that the order no longer tends to accomplish the declared policy of the AMAA.

Background

Improved refrigerated rail transportation of perishable commodities in the last quarter of the 19th century lengthened possible distances from producer to market and increased the size of shipments. Packers assembled carlots from many producers to ship, often from Western production areas to cities in the East. The producers wished to form associations to pool their produce and sell it on the same terms. The Capper-Volstead Act in 1922 assured producers that formation of a marketing cooperative was legal. Even after passage of Capper-Volstead, producers found it impossible to avoid the "free rider" problem. That is, producers who were not members of the marketing association received the benefits from the marketing association without abiding by the shipping restrictions (price, quantity, or quality) incumbent on members. The AMAA eliminated the undercutting behavior of free riders by allowing the formation of marketing orders binding on all handlers if two-thirds of producers voted to approve the order.

The AMAA was a reenactment of and amendment to the Agricultural Adjustment Acts of 1933 and 1935. The 1933 Act provided for marketing licenses, while the 1935 Act set forth more specifically the terms and provisions that could be used under the program and called the instruments "marketing orders" instead of licenses. The 1937 Act largely restated the provisions relating to marketing agreements and orders. It thus continued the New Deal farm legislation of the Great Depression. The Roosevelt Administration wanted to bring order, confidence, and growth to the country, which was more rural then. The language of the AMAA is understandably couched in terms of bringing stability and order to commodity markets, with the intention of stabilizing farm prices, farm incomes, and rural credit.

The AMAA, describing the consequences when orderly marketing is lacking, declared that "disruption of the orderly exchange of commodities in interstate commerce impairs the purchasing power of farmers and destroys the value of agricultural assets which support the national credit structure" (USDA, 1990, p. 108). In support, Congress authorized the Secretary of Agriculture powers with the objective of attaining parity prices, in brief, prices such that the relationship between farmers' commodity selling prices and purchased input prices should be on par with the relationship in a specific historical period. Recognizing consumers' interests, the Secretary was ordered not to act to move prices too quickly to parity nor to act to maintain prices above parity. (For more details on parity, see Teigen, 1987.)

Although establishing parity prices is the ultimate objective of the AMAA, milk pricing as addressed in section 8(c)(18) states that if parity prices are unreasonable in view of supply-demand conditions, the Secretary will establish prices that reflect such supply-demand conditions, ensure an adequate supply of milk, and are in the public interest. With the addition of section 8(c)(18) in 1937, balancing supply and demand effectively replaced parity as the objective of setting minimum prices under milk orders.

Structure and Activities

Although authorized by the same legislation, fruit and vegetable marketing orders and milk marketing orders are very different. Even in the 1937 Act, certain sections deal only with fruit and vegetable orders and others only with milk orders. To eliminate any possible confusion, the structure and activities of the two types of marketing orders are treated in separate subsections of this report.

Fruit and Vegetable Marketing Orders

There are 35 active Federal marketing orders for fruits, vegetables, nuts, and specialty crops, 12 fewer than in 1981. Three more, California-Arizona orders for lemons, Valencia oranges, and navel oranges, were terminated by the Secretary in August 1994. Three others, Maine potatoes, Texas Valley tomatoes, and South Texas lettuce, are still authorized but are inactive, and two peach orders are suspended. A peanut marketing agreement without a marketing order regulates minimum quality to ensure that unwholesome peanuts, primarily those contaminated with aflatoxin, are excluded from edible uses.

Federal marketing orders may regulate commodity quantity and quality, container and pack standards, and the conduct of research and market development programs. Marketing orders perform a variety of functions, but most of them concentrate on quality standards and market support activities (app. table 1).

This report focuses on the two categories of marketing order activities that have the most direct impact on markets. Quality provisions (product standards) set minimum size, grade, and maturity requirements for commodities marketed. Quantity provisions regulate the total volume that can be marketed, how the product will be used (for example, fresh as opposed to processed), or the flow of products into the market.

Quantity Provisions

In brief, the five quantity provisions do the following:

(1) A producer allotment assigns a maximum quantity, ordinarily based on historical marketings, that a handler can market from each producer in a single season. USDA determines the total quantity that will be eligible for sale and multiplies it by each producer's share to arrive at the allotment to the individual producer for the season. Only the orders for cranberries and Far West spearmint oil authorize producer allotments. Florida celery was authorized to use a producer allotment until the order was suspended in January 1995.

(2) A market allocation specifies a maximum quantity that can be sold for a given use. For commodities with different price elasticities of demand, producer revenues can be raised by separating the market, for example, fresh and processed or domestic and export, and restricting the quantity eligible to enter the less elastic market (app. fig. 1). Four orders authorize market allocations: California almonds, Oregon-Washington filberts, California walnuts, and California prunes.

(3) A reserve pool establishes a procedure for withholding some marketable supplies if total supply exceeds estimated market demand at a given price. The quantity withheld can be released later if market conditions prove better than expected or can be diverted for sale in a secondary food market, for sale in a nonfood use, or for stocks to be sold in a future marketing year. Four orders authorize reserve pools: California walnuts, Far West spearmint oil, California raisins, and California prunes.

(4) A prorate regulates the flow of product into the marketing channel, evening out weekly (or occasionally some other specified time period) shipments. A prorate is not intended to be used to affect the total quantity marketed during the season. Each producer is limited to a prorated share of an estimate of movement for a given time period, typically a week. Prorates were used by the California-Arizona marketing orders for citrus fruit, which can be stored ripe on the tree for a limited time. With the termination of three citrus orders on August 26, 1994, no marketing orders use prorates.

(5) A shipping holiday prohibits shipment for a specific duration, usually around holidays. A shipping holiday keeps products from accumulating at terminal markets at a time when movement is typically slow. Shipping holiday is the weakest of the quantity provisions and so has the smallest potential to affect total quantity marketed during a season or average season price. Five orders authorize shipping holidays.

Few marketing orders use volume controls. Leaving aside the flow-to-market provisions (prorates and shipping holidays), only 9 of the 35 marketing orders authorize quantity provisions. As the following discussion will elaborate, quality standards hold potential to affect quantity marketed or provide a strategic advantage for a dominant group within the order and ensure consistent, high quality.

Minimum Quality Standards

Marketing orders are also authorized to establish minimum standards for grade, size, maturity, pack and container standards, and to conduct research and market development programs. Quality standards prohibit marketing of products that do not have required minimum attributes. The economic functions of such standards are to facilitate trading by product description, lower transaction costs, improve marketing efficiency, and differentiate commodities (Farris, 1960).

The basic rationale for quality standards is very simple: only satisfied customers are repeat customers. Most products covered by marketing orders move through marketing channels to grocery stores without brand identification. It is in the common interest of the producers to ensure that inferior products do not reach the market, because, in the absence of branding, the information link between the producer and the consumer is broken. Subpar produce makes a negative consumer impression that is associated with the product generally (or with the retail outlet) rather than with the individual handler who was willing to sell immature or otherwise undesirable produce. Moreover, given the positive relationship between price and quality, packers respond to the incentive to exceed the minimum standard.

In this sense, mandatory marketing order quality standards avoid a free rider problem. While each handler (or producer/handler) might agree that its market is strengthened by maintaining high standards, an individual handler could, in the absence of those standards, increase the quantity sold without seeing a fall in price. If each handler would pursue that strategy, though, the average quality would be lower, consumers would be less satisfied, and eventually less produce would be sold at a lower average price. Thus, quality standards help ensure that consumers are presented a product that is of a consistent quality. The increased prevalence of large-scale retail and wholesale buyers procuring produce that must meet detailed specifications may reduce the need for minimum quality standards.

There is potential to use quality standards to reduce supply with the intent to raise prices (app. fig. 2). This purpose is not expressly authorized in the legislation, but USDA acknowledged its potential use in a 1982 bulletin, "Guidelines for Fruit, Vegetable, and Specialty Crop Marketing Orders":

> Industry should be cautioned that use of quality regulations primarily as a form of supply control is contrary to Administration policy. Therefore, the Department will continue to evaluate the use of this feature with particular emphasis on the following three areas: (1) whether quality controls have varied significantly from season to season or within seasons, (2) whether the percentage of product meeting minimum quality standards has been declining, or (3) whether the standards have been tightened over the years.

One way to do that would be to set the standard high enough that some fraction of the normal crop does not meet a marketable standard. Addressing this point, Brader (1992), formerly director of the Fruit and Vegetable Division in USDA's Agricultural Marketing Service, stated, "It is true that vegetable marketing orders concentrate in the use of grade and size regulations to deal with disorderly marketing and avoid the

use of volume management authorities. These orders are clearly oriented toward activities intended to stimulate demand. It is interesting to note that Federal marketing orders in the United States do not regulate quantity through the variation of quality controls (such efforts proved unproductive for Maine potatoes and Florida tomatoes in the 1960's and early 1970's)."

To test whether quality standards were being used to affect producer prices, Jesse (1981) constructed a quality index reflecting the restrictiveness of the quality standard for marketing-order commodities with quality standards that varied from year to year. Testing whether or not the quality index helped to explain price variations, Jesse concluded that, in fewer than half of the cases examined, the statistical evidence supported the notion that quality standards were being varied to affect prices. Even in these cases, other explanations were not ruled out. For nearly a quarter of the commodities examined, the evidence was consistent with the hypothesis that higher quality standards could be used to increase demand.

In theory, another way to restrict quantities available to the market would be to set a quality standard that describes only domestic products and excludes foreign products. Chambers and Pick (1994) demonstrated that while it is theoretically possible for one country to gain from introducing minimum quality standards, both countries will not gain, implying that a minimum quality standard adopted by a single country can act as a nontariff trade barrier. If quality standards are used to discriminate against imports, they can be challenged as nontariff trade barriers (Bredahl, Schmitz, and Hillman, 1987). Legally, prohibitions in section 8e of the AMAA ensure there is no discrimination against imports for 23 marketing-order commodities. Section 8e import regulations are consistent with the purpose of the General Agreement on Tariffs and Trade (GATT) article III, which ensures that imports are not discriminated against by being subjected to standards higher than those applied to domestic products. In practice, foreign and domestic shippers respond to the higher prices and potential for market development associated with higher quality products such that marketing order and section 8e requirements are met or exceeded.

Milk Marketing Orders

There are presently 38 Federal milk marketing orders, down from the peak of 83 in 1962 (app. table 2). The reduction can be accounted for mainly by consolidation, as the proportion of milk currently regulated by Federal orders is substantially higher than in 1962. In addition to the Federal orders, State orders exist under their own State authorization, most prominently in California.

The Federal milk orders operate quite differently from the others, but under the same AMAA authorization. Quantity and quality control provisions are not authorized for Federal milk orders. Section 8c(5)(G) states that a milk marketing order shall not prohibit or limit the marketing in its marketing area of milk produced in any U.S. production area.

The milk orders price Grade A milk according to its use for fluid milk (class I), soft products such as ice cream and cottage cheese (class II), or manufactured products such as cheese, butter, and nonfat dry milk (classes III and III-A). Many detailed descriptions of milk orders exist, some shorter (Manchester, Weimar, and Fallert, 1994) and some longer (USDA, 1989, and American Agricultural Economics Association, 1986).

Federal milk orders are generally initiated by producers through their cooperative associations. A milk order can be initiated by the Secretary or any interested party. However, producers usually take the first step because issuance of an order requires producer approval.

All costs, including administration of the milk order program, are funded by the industry except the costs of the Washington, D.C. staff. Proposals have been made to cover the Washington, D.C. staff costs under user fees.

Assessment of Marketing Orders

There would never have been marketing orders if producers had not proposed them. Fruit and vegetable marketing orders ensure consistent quality to consumers, support market and product research, and standardize containers and packs. AMAA provisions prevent the use of marketing orders to increase farm revenues through active use of quantity provisions or frequent changes of quality standards with intent to raise prices above parity.

Some agricultural programs other than marketing orders are designed explicitly to increase farm and agribusiness incomes. To the extent that farm income support is accepted and the public budget for farm programs is limited, marketing orders with necessary amendments to the AMAA would appear to hold some promise.

On the other hand, the declining number of Federal fruit and vegetable marketing orders and the infrequent use of the most intrusive marketing order provisions in these orders are evidence that significant costs are

attendant to compliance with a marketing order. While some marketing orders have proven stable, others have been unable to maintain a solid coalition of producers.

Consumers, taxpayers, or foreign interests may directly or indirectly pay for farm programs through higher prices, higher taxes, or diminished market access, respectively. In the case of marketing orders, the Government's responsibility is more administrative than financial. The U.S. authorizing legislation protects foreign interests from the discriminatory application of marketing order provisions in section 8e.

Consumer interests can be well served or adversely affected by marketing orders. In addition to more consistent product quality in fruit and vegetable orders, some studies (for example, Glasson, 1981, and Breimyer, 1965) have concluded that market support activities may stabilize markets by reducing uncertainty, resulting in greater price and quantity stability to consumers and producers. Higher consumer prices may also result, as other studies have concluded (Booker, 1976, Federal Trade Commission, 1975). There appears to be no consensus on the magnitude of any price discrimination in milk marketing orders resulting from the classified pricing system, nor if consumers would prefer slightly lower prices on average at the expense of less stable prices and supplies of milk.

Infringement of consumer sovereignty is another complaint about fruit and vegetable marketing orders from market allocations and from quality standards that are deemed too high. The market allocation can raise prices for fresh produce, which costs consumers directly. A high quality standard may lead to a higher price than would prevail without the standard. Consumers are denied the opportunity to choose to buy smaller or less cosmetically appealing produce that would sell at a lower price. Proponents of this view argue that produce not meeting minimum quality standards established through a marketing order should be allowed to compete for shelf space in grocery stores or other outlets on the basis of profitability in the marketplace rather than being excluded from the market.

Additionally, the establishment of a marketing standard could induce researchers to select for plants that will yield fruit, vegetable, and specialty crop produce of the requisite quality standard. Flavor (or taste), being subjective, is not generally an attribute in quality standards. Selection to meet size or color or another nonflavor attribute may be flavor-neutral. The positive selection for nonflavor attributes lowers the priority of flavor, which is arguably more important to consumers. Offsetting this effect, selection can use flavor-correlated attributes such as soluble solids, juiciness, or sugar/acid ratios, which are used as reliable indicators for maturity in the grading process.

One important test of the ability of marketing orders to achieve desired results is the willingness of the industry to keep them in effect or to terminate or modify them. Based on news reports, one might expect that consumer interest groups cause orders to be terminated or altered. Perhaps surprisingly, a key reason that orders falter is that growers are not homogeneous. When a referendum is held, producers must evaluate whether the marketing order benefits exceed the costs. Grower equity issues, disputes over fair treatment, can affect the producer's benefit-cost evaluation and arguably account for much of the decline in marketing order activity.

Keen (1993) hypothesizes that if these equity concerns are not accommodated, a fruit and vegetable marketing order can fail to retain support when enough growers find that the costs of having the order, such as constraints on business expansion or rules that disfavor some producers, outweigh the stabilization or other market-enhancement benefits of having the marketing order.

Keen cites the case of California-Arizona grapefruit growers. In Arizona, the grapefruit tend to be smaller because nights are cooler. The minimum size requirement under the order favored the California growers, who dominated the order. It was in the interest of the California growers to establish a larger minimum size, while Arizona growers had more difficulty selling a sizable share of their produce in the fresh market.

Intra-industry equity issues can surface at both individual and regional levels. An order covering a compact area can have difficulty reaching decisions acceptable to small- and large-volume producers. In the case of the grapefruit order, equity issues arose because growing conditions varied within the relatively small area. Milk marketing orders have adapted by consolidating orders. The fact that 38 Federal orders remain, along with State orders and areas with no orders, is at least partly due to the differing interests of the regions.

With milk marketing orders, regional equity issues persist, and the rulemaking process has lengthened. On many issues, the industry has failed to develop any consensus. Milk order proceedings commonly involve many orders, and the clearance procedure has become more complex. On some issues, the rulemaking process has failed to produce decisions for years. A case that illustrates these points is the national milk marketing order hearings that were conducted in the fall of 1990. The decisions were announced in 1993.

In early 1994, a Minnesota judge ruled that nothing illegal had been done procedurally, but that for milk marketed east of the Rocky Mountains, the USDA decision lacked adequate justification. The decision was returned to USDA for additional consideration of class I price differentials. A further hearing before the Minnesota court is scheduled for late May 1995.

Research and Promotion Programs

The goal of commodity research and promotion programs is to increase sales, to expand markets for agricultural commodities. These programs are authorized under State legislation, under the AMAA, and under stand-alone Federal legislation. This section examines the stand-alone Federal research and promotion programs. These programs are commonly known as checkoff programs because they are funded, with several exceptions, by deductions or "checkoffs" from commodity transactions. Producers, handlers, processors, and importers paying the assessments control their checkoff programs by referenda voting, including the ability to terminate them by recall referenda.

Structure and Activities

Each checkoff program is commodity specific and is based on separate Federal enabling legislation. The enabling legislation for each program provides guidelines for and authorizes the Secretary to issue an order based on proposals submitted by industry representatives and on notice and comment rulemaking. The order provides details for the implementation of the program.

The legislation for each checkoff program authorizes a board of directors to run the program under USDA supervision. The legislation and order specify board size, representation, member selection procedures, decisionmaking rules, and the activities that the board may engage in. The legislation and order for each program also specify who will be assessed, the assessment rate, and the procedures for collecting the funds. They also specify how those being assessed can change or terminate their checkoff program by referendum. Legislation for some recently enacted checkoff programs does not require an approval referendum prior to program implementation, but does require a referendum at some point to approve program continuation.

Checkoff program activities used to expand domestic and export markets include advertising, promotion, nutrition education and research, market research, new product and process development, technical assistance, and effectiveness evaluation. Checkoff boards choose the activities to engage in and make the contracting decisions for carrying out the chosen activities subject to the Secretary's approval. The staffs of checkoff boards are generally too small to independently carry out the chosen activities, so the boards often contract with private firms, universities, and trade associations. Contracting provides maximum flexibility in choosing the most productive resources for carrying out the activities selected by the board. Funds are provided by some checkoff boards to State research and promotion boards that engage in similar activities.

Checkoff programs use assessments to conduct export promotion activities or contribute assessments to organizations that promote several commodities in export markets. For example, the National Potato Promotion Board conducts both domestic and export promotional activities, while the Cattlemen's Beef Promotion and Research Board and the National Pork Board contribute assessment funds to the Meat Export Federation, a nonprofit organization that promotes red meat for export. Checkoff assessments for export market promotion are strengthened by USDA's Market Promotion Program funds, administered by the Foreign Agricultural Service.

Because checkoff programs are designed to be marketing programs, lobbying is forbidden by the enabling legislation. Commodity trade associations generally represent the political interests of industry members.

The Secretary has delegated oversight of the Federal research and promotion programs to USDA's Agricultural Marketing Service (AMS). The oversight function includes: 1) assuring that funds are spent only for activities authorized by statutes; 2) maintaining proper program administration; and 3) ensuring that these programs conform to USDA policies and other relevant Federal laws (Clayton). Except for the wool and mohair program, the checkoff programs reimburse AMS for its direct oversight costs (app. table 3).

Checkoff programs attempt to increase consumer demand through advertising by informing domestic and foreign consumers about the attributes of the commodities. This effort is aimed at creating or enhancing a desire to buy a commodity or the product(s) produced from a commodity. Research is supported to discover and measure a commodity's attributes and to determine the market segment most likely to favorably respond to advertising. Checkoff programs also attempt to increase demand by providing assistance to restaurants and retail stores in preparing and displaying food products. Some checkoff programs also fund research to reduce processing costs and to improve the quality

of processed products. Technical assistance in implementing the research results is provided to processors by checkoff programs.

All checkoff programs engage in generic advertising and promotion, which promotes a commodity or the products made from a commodity without regard to brand name. The advertising and promotion are brand neutral, based on attributes of a commodity that are common for all brands. In contrast, branded advertising generally emphasizes brand attributes and is often meant to increase the demand for one brand at the expense of others. Because branded advertising sometimes also promotes attributes of the underlying commodity, some checkoff programs allow reimbursement to proprietary firms and cooperatives for the generic component of their advertising (app. table 4).

Checkoff program funds are raised by assessing the producers and/or buyers of the commodity. Buyers assessed by checkoff programs include handlers, processors, and importers. Assessments are calculated as a percentage of a transaction's dollar amount, or as a fixed amount per commodity unit times the number of units in the transaction, or both (app. table 3).

Thirteen checkoff programs collected funds in 1993 (appendix table 3). This table also includes collections for the fluid milk program which started collections in February 1994. The total collections from the 14 active checkoff programs in appendix table 3 were almost $548 million. Importers were assessed about $25 million of the total amount collected. The dairy program collected 41 percent of all the funds collected. Beef, cotton, fluid milk, pork, and soybeans collected 15, 9, 10, 7, and 11 percent of the total, respectively. The other 8 active checkoff programs only collected 7 percent of the total. Four checkoff programs shared funds with State checkoff programs. The beef program shared 45 percent of its checkoff funds with State programs, dairy 66 percent, pork 20 percent, and soybeans 41 percent.

Checkoff Program Economics and Evaluation

Because checkoff programs can be terminated by a referendum, boards have an incentive to choose activities that result in the largest rate of return on assessments. Producers and buyers are more likely to support a checkoff program if they are convinced that the rate of return on assessments equals or exceeds the return from using the funds directly in the business. Rate of return is the common denominator for choosing among alternative investments.

Making effective activity choices and convincing those paying the assessments to support their program requires frequent program monitoring and evaluation. Evaluating checkoff programs can be difficult, however. While data on the amount of assessments are readily available, estimating the changes in revenue resulting from program activities involves sorting out the effects of research and promotion efforts from all the other factors that influence the levels of price and quantity consumed, including prices of competing products, the level of consumer income, and the research and promotion expenditures for competing commodities and products.

Estimating the effect of a checkoff program on revenue requires a long-term commitment to data collection and analysis. The effects of some activities on revenue are not immediate, but may be long-lasting after they begin expanding demand, for example, research activities to improve commodity and product quality and processing efficiency. (The appendix contains a more detailed explanation of demand expansion from checkoff programs and how the increased revenues are shared among producers and buyers of agricultural commodities.) The effects of other activities, such as advertising, are more immediate, but have shorter term effects. These types of activities must be continually repeated to have a lasting effect on revenue. Evaluation of these types of activities should be repeated because their effects can change from year to year. Clayton states that, "Measuring the effectiveness of a checkoff program is no easy task."

Only the dairy and fluid milk checkoff programs' enabling legislation require an independent evaluation of program effectiveness, which must be delivered to Congress by July 1 of each year.

Checkoff programs provide a means for producers of commodities to expand demand. However, checkoff activities that increase the demand for a commodity can reduce the demand for close substitutes, resulting in fewer sales and revenues and lower prices for the close substitutes. Consequently, it is difficult for a checkoff program to increase market share and revenue when competing against checkoff programs for close substitutes.

Producers and buyers assessed by a checkoff program arrive at conclusions about the rate of return on their assessments, even without a thorough evaluation of their program, and make their conclusions known in checkoff referenda. Selective referenda results are shown in app. table 3. A vote for establishing or continuing a checkoff program is a prediction that the rate

of return on future assessments will equal or exceed the returns from investing the funds in the business. A vote against is a prediction that they will not.

It is more difficult to convince producers that a checkoff program provides a sufficient return on assessments if commodity sales and revenue are not maintained or improved. If sales and revenue continue to decline, a checkoff board would need to show producers some tangible evidence from an activity, such as a new or improved product developed with checkoff assessments, that suggests an eventual improvement in commodity sales and revenues. Statistical evidence that sales and revenues would have declined even more without the checkoff program is also helpful in convincing producers that the program is providing sufficient returns to assessments. Evaluations of individual promotions such as those under the Market Promotion Program may also be helpful in convincing farmers that their checkoff program is worthwhile as well as helpful to a board's selection of activities and projects. Producers, however, are more interested in their overall return on assessments than in the return on individual projects.

Cotton producers credit the cotton checkoff program with reversing the downward trend in sales and revenues of U.S. cotton in the 1970's. Checkoff funds were used to develop new processing technology and to make product quality improvements. The vast majority of producers were convinced that the return on assessments was sufficient even without a thorough evaluation of the cotton checkoff program to estimate rates of return on assessments.

Evaluations of checkoff programs have generally concentrated on reporting methods and data used rather than on providing rates of return estimates. In addition, evaluations have usually examined promotion activities rather than research activities. This emphasis reflects the need to communicate applications of new methods and data needs to other researchers. It also reflects the degree of difficulty in evaluating checkoff programs, particularly the research activities for improving products and increasing processing efficiency. The objective of these studies is to provide a foundation for making estimates of returns to checkoff assessments that can be a guide for boards and for those being assessed. Forker and Ward, in an intensive review of promotion evaluation studies, concluded that the findings suggest a positive return to promotion activities but that the differences in returns among the studies may be influenced by the differences in methods used.

The most comprehensive checkoff evaluations have been for beef and dairy. Forker and Ward report an estimated rate of return of 5.7 percent to the beef checkoff program from January 1987 to June 1991. The 1994 USDA report to Congress on the dairy checkoff program estimates that fluid milk sales were increased by 3.5 percent for the most recent year in the 12 regions studied due to checkoff advertising expenditures. The report also estimates a 2.5-percent increase in cheese sales for home use from July 1992 through June 1993 over estimated sales without checkoff expenditures.

Consumers

Domestic promotion and advertising for a commodity that successfully expands consumer demand and results in larger sales may also result in a higher price. The larger sales, even at a higher price, are based on individual consumer choices that in total reflect an increased willingness to pay. A sustained higher price, if it occurs, is due to larger per unit costs from producing additional commodity. Checkoff programs cannot simply raise prices to cover promotion and advertising costs.

The source of the increased consumer willingness to pay, or increased value to consumers, may come from quality improvements or from better nutritional information about an existing commodity or product. The increased willingness to pay means that consumers in total are getting more satisfaction from the commodity or product used. The appendix provides a more detailed explanation of how promotion and advertising expand demand (app. fig. 3).

Some consumers are not influenced by the consumer demand expansion activities of a checkoff program. As a result, these consumers are worse off if they have to pay a higher price, because their willingness to pay has not changed. This outcome might be considered a public policy issue if low-income consumers are hurt by the price hikes from the expanded demand because of insufficient substitutes at lower prices (Blisard and Blaylock).

Research sponsored by checkoff programs that reduces processing costs results in larger producer sales and revenues and can result in lower consumer prices and greater quantities consumed. The appendix explains how these desirable producer and consumer outcomes can occur (app. fig. 4).

Legislative Developments

Enabling legislation has been enacted for 18 checkoff programs; 16 remain, although one of these is inactive. The Secretary terminated the wheat checkoff program in 1986 at the request of its board of directors. The pecan checkoff program was terminated in March 1994 by a delayed referendum. The delayed referendum was used to give the pecan program a trial period.

Thirteen checkoff programs collected funds and engaged in research and promotion activities in 1993. The checkoff programs for limes, fluid milk, cut flowers and greens, and flowers and plants did not collect funds in 1993. The lime program has been implemented, but is still being organized. The fluid milk promotion program has now been implemented and assessments on fluid milk processors were collected starting in February 1994 for a 6-month period. The advertising effort was started in January 1995. The program for cut flowers and greens is being implemented. It is a replacement for the inactive flowers and plants program, which was rejected in a 1983-84 referendum and remains inactive.

In addition to the pecan program, 2 of the 13 programs that collected funds and engaged in research and promotion programs in 1993 are scheduled for termination. These are the wool and mohair programs, the only two programs supported by deductions from government support payments rather than by checkoffs from commodity transactions. They are scheduled for termination at the end of 1995 because the support programs for these two commodities are being eliminated.

The first checkoff program was enacted in 1954 for wool. Five more checkoff programs were enacted in the 1960's and 1970's. The other 12 were enacted from 1981 through 1993. Three of these were included in the 1985 farm legislation and 5 in the 1990 farm legislation. The 1990 farm legislation also amended four existing checkoff programs.

The decline in Federal expenditures for commodity price and income support programs and the growing difficulty of getting Federal funds for commodity research and promotion are the major stimuli for the growth in the number of checkoff programs. Congress and commodity organizations have been active participants in developing new checkoff programs and improving existing programs as a result of these budget-driven stimuli.

The enabling legislation for the checkoff programs enacted in the 1980's and 1990's contains several significant changes from earlier legislation. Programs enacted before the 1980's have been amended to include some of these changes. The significant changes include the following:

1) eliminating refunds on assessments,
2) assessing importers and including importers on checkoff boards,
3) delaying initial approval referenda until after program implementation,
4) reducing the percentage of producers and buyers required to implement, amend, and recall a program by referendum, and
5) enabling producers and buyers to have a recall referendum without the need for petitioning.

The first and second changes eliminate the so-called free riders. A free rider gains the benefits of a checkoff program without paying any of the cost. The third change postpones the initial approval referendum for a checkoff program until after the program has been operating for a specified time period, resulting in less control by those being assessed. Its purpose is to convince those being assessed that the program will provide a sufficiently large market expansion to justify voting for continuing the program in the approval referendum. Refunds are allowed if a program is terminated by delayed referendum. The fourth change makes it easier to implement, change, and terminate programs. The fifth change gives those being assessed more control over their checkoff programs.

The dairy research and promotion program, authorized in 1983, was the first program that did not allow refunds on assessments. This was quickly followed by the pork and beef programs in 1985. The programs for soybeans and watermelons were the only ones that collected funds and allowed refunds in 1993. Watermelon producers, handlers, and importers eliminated refunds in a November 1994 referendum. The Secretary will poll soybean producers on their desire to have a referendum on eliminating refunds.

In 1988, the U.S. Court of Appeals for the Third District upheld the right of the beef checkoff program to collect assessments without allowing refunds in *U.S. v. Frame* (Watkinson and Miller). This was the first constitutional test of a checkoff program and appears to have set a precedent of not allowing refunds. Not allowing refunds may be crucial to maintaining viable checkoff programs. Several programs experienced significant growth in the number of refund requests before refunds were eliminated. Refund requests can accelerate rapidly as those supporting a checkoff program

conclude that too many producers and buyers are not paying their fair share.

The soybean checkoff program, enacted as part of the 1990 farm legislation, includes a recall-referendum requirement. The program requires that the Secretary poll producers every 5 years to determine if there is sufficient demand for a recall referendum. The mushroom checkoff program, also enacted as part of the 1990 farm legislation, requires one recall referendum 5 years after the initial referendum. The 1984 honey statute requires that a continuance referendum be held every 5 years.

The standard procedure is to hold a recall referendum if petitioned by a specified percentage of those being assessed. Many of the checkoff programs require a recall referendum when at least 10 percent of those being assessed sign a recall petition. Petitioning requires considerable organizational effort as well as time and expense for many producers and other assessment payers, particularly if the effort is not supported by one or more commodity organizations. Consequently, producers and others may be discouraged from petitioning.

Forker and Nichols (1994) suggest that a mandatory periodic recall referendum is an option for increasing program efficiency. This approach makes it easier for those being assessed to voice their opinions and, consequently, may help focus attention on program performance.

The boards of dairy-producer cooperatives are allowed to vote on behalf of their members in dairy checkoff referenda. A cooperative board, with this form of voting, determines the majority sentiment of the membership on a referendum and then can choose to cast the votes of its membership either for or against, except for those members that choose to vote individually. Each member has the right to request a ballot and vote individually. This form of voting is called modified bloc voting.

Modified bloc voting has been challenged, but is allowed under the authorizing legislation. Traditional bloc voting by cooperative boards for determining producer support for marketing orders has been upheld in the courts (Watkinson, 1993). This form of bloc voting does not allow cooperative members to request a ballot and vote.

The 1990 farm legislation included a Sense of the Congress statement about checkoff board activities under the heading of Producer Research and Promotion Board Accountability. The statement stresses that checkoff boards must closely follow the mandates of the underlying enabling legislation to ensure that the interests of those paying the assessments are served, as well as to be in the general public interest. It ended with, "... each currently operating checkoff board or council should review its charter and activities to ensure that its duties and responsibilities have not been inappropriately delegated or otherwise relinquished to another organization." This statement was aimed at ensuring independence from the influence of trade associations, since they are involved in lobbying, which is prohibited under checkoff programs. Congress reinforced this position by amending the legislation authorizing the soybean checkoff program to ensure that the board's decisions were independent of other organizations.

The Programs in a Broader Context

Budget Implications

Marketing orders have often been referred to as "farm programs you don't see" because only USDA oversight expenses appear in the Federal budget. In the case of milk orders, even most of the administrative costs are borne by the industry. Research and promotion programs are even less visible because all but two of the orders reimburse the Federal Government for administrative expenses. The low-budget aspect of these programs provides an incentive for taxpayers and the Federal Government to use them to the maximum extent.

In an era of large Federal deficits and attempts to reduce them, spending for agricultural programs is expected to decline. However, American society may still favor farm support. With appropriate amendments to authorizing legislation, agricultural marketing orders could be instruments that transfer benefits to farmers from consumers. More extensive use of quantity provisions or quality provisions to reduce supplies might raise prices and farm incomes, at least in the short run, although evidence shows that marketing orders have had very limited success in raising farm prices. If this happens, more of the cost of farm programs would be paid by consumers through higher food prices rather than through payments by taxpayers. The observable difference would be to move the cost of farm support away from the Federal budget and into the market to be paid by food consumers.

Marketing Orders and Traditional Farm Programs

There have been periodic calls to evaluate the ability of marketing orders to supplement or even substitute for traditional farm programs (Shaffer, 1994). Powers (1990) concludes that marketing orders would not work well for major field crops because the orders would be harder to organize for field crops, which are not as restricted geographically or in numbers of farmers as are most of the marketing order commodities. Admittedly, these conditions have usually been present where a marketing order has persisted. Perhaps this argument confuses cause with effect. An alternative interpretation is that the terms of the AMAA were written to satisfy the needs of particular producer groups, mostly California produce organizations (Keen, 1993, pp. 27-29). Accordingly, there is no reason in principle why traditional farm programs could not be supplemented or substituted by marketing orders. The question would be what order provisions would be suitable for major program commodities not currently covered by marketing orders.

The experience from current marketing orders, particularly milk, could shed some light on the question of applying marketing orders to other major program commodities, but leave more questions than answers. The difficulties are illustrated by regional differences in policy preferences for milk orders, such as on fluid milk price differentials and basing points for pricing. Milk orders also demonstrate that a major commodity can be successfully managed by marketing orders. Milk orders demonstrate that separate production areas need not all be in a single order. Milk also has, in addition to marketing orders, a price support program undergirded by very restrictive import quotas. Aside from milk, the other existing models for applying a marketing order to either a large number of producers or a large geographic area are to have more than one order for the same commodity (for example, Georgia Vidalia onions, Texas onions, and Idaho-Oregon onions) or to have more than one geographic area combined into a single order (for example, 10 States for cranberries and 7 contiguous States for spearmint oil).

Geographic dispersion and a higher number of producers imply greater costs of organizing the marketing order. Information must be shared among more producers over greater distances. Greater geographic dispersion also increases the likelihood of divergent interests in program provisions arising from different growing conditions and farm structures. Keen's (1993) work tends to support the view that marketing orders work best for commodities where production is highly concentrated geographically. Without discounting the possibility of equity concerns within an order with few members in a small area, he specifically cites equity issues as becoming more problematic as the number of producers increases and as the production is spread over a larger area.

Changes in the agricultural economy during the decades since passage of the AMAA have diminished the hindrances of geographic dispersion and a large number of handlers. Several marketing orders for a single commodity, each tailored to the needs of a particular area, could ameliorate some of these concerns. Further, communications improvements since the inception of marketing orders have greatly reduced the problem of information costs in terms of time and actual outlays. There are of course far fewer producers and handlers to organize than there were when the AMAA was first passed.

Experience also suggests that marketing orders would need to be modified significantly if they were expected to supplement or substitute for the income support provided by price support programs, for instance. Many fruit and vegetable marketing orders have voluntarily given up their volume control provisions and restricted themselves to market support and advertising functions. Attempts to restrict volume to raise prices invite disputes over shares of the restricted volume, induce production of the commodity outside the marketing order area, and would be less successful if domestic or imported supplies or close substitutes are available.

Market Solutions versus Government Intervention

Like other farm programs, marketing orders grew out of the Great Depression, a time when stabilization of the economy was paramount and agriculture was a much larger part of the national economy. Since the late 1970's, many sectors of the economy have undergone significant deregulation. The question is asked repeatedly: "Could the market sort these things out better than a government program can?" In the case of fruit and vegetable marketing orders, part of the answer is that many marketing orders rely more than formerly on quality provisions and market support activities such as market research. They rely less on quantity provisions, which are the strongest and most direct interventions for fruits and vegetables authorized under the AMAA. Also, as discussed in the previous section on the background of marketing orders, the government programs dealt with free riders by mandating compliance with marketing order provisions upon approval of the order by a majority of the producers. Voluntary cooperation had allowed free riders to undermine the efforts of cooperative producers.

Marketing orders exist because producers want them. The rulemaking procedure may be cumbersome and slow, but the system has adapted to new conditions over the years, as in the consolidation of milk orders and the shift away from using quantity provisions in fruit and vegetable orders. If currently authorized marketing orders are no longer useful, mechanisms are in place to modify or terminate them without additional legislation, as evidenced by the termination of three citrus orders in August 1994.

Compatibility with Industrialization of Agriculture

In many ways, market conditions are different for marketing order commodities in the 1990's than they were in the 1930's. Innovations in transportation, technology, and information, along with the transformation of farm structure and the increasing vertical ties between producers, handlers, and retailers, have changed the position of some producers with respect to other market participants. In these changed circumstances, there is some question whether there is a need for mandatory group action because of (1) voluntary collective action or (2) strategic behavior by cooperatives (for example, explicit consideration of how competitors react). In some cases, farmer cooperatives have a greater presence in the market than any of the other participants in the marketing chain.

On the other hand, there is little likelihood that marketing orders can act as strong cartels that unduly enhance prices to the detriment of society. Few of the fruit and vegetable marketing orders use the quantity provisions that they are authorized to use. Further, milk orders are entirely prohibited from using quantity control provisions.

In other basic ways, however, there has been little change. Most of the commodities covered by marketing orders are perishable, and their production is highly variable. Small changes in supply cause large price changes. The number of buyers for these commodities is also limited relative to the number of sellers. As a result, producers of these commodities would tend even more than is currently the case to be price takers rather than price makers in the absence of orders.

Compatibility with Globalization and Trade Liberalization

The North American Free Trade Agreement (NAFTA) and the Uruguay Round agreement in the General Agreement on Tariffs and Trade (GATT) intensified consideration of the trade effects of technical standards. As tariff and quota barriers are reduced, the focus of protectionism turns to the remaining modes, such as technical standards and quality standards. While technical standards are not a new topic in trade relations—product standards are one area within the GATT Uruguay Round agreement—it is frequently harder to distinguish appropriate uses of standards from inappropriate uses. Quality provisions have the potential for being used for unauthorized purposes. Industry forces that favored protection in the form of tariffs and quotas before the recent agreements may seek import protection through sanitary and phytosanitary standards. However, under GATT and NAFTA, all technical standards must have a legitimate purpose such as plant health, consumer health, and quality.

Section 8e of the AMAA requires imports of certain fruits and vegetables subject to marketing orders to meet domestic minimum grade, size, and maturity standards when those are also in effect for domestic commodities. When variations in characteristics of imported products relative to domestic produce make application of domestic standards impractical for imported products, "equivalent or comparable" standards are to be applied. A 1990 farm legislation addition to section 8e requires the Secretary of Agriculture to give 60 days' notice before restricting imports in order for the U.S. Trade Representative to establish that the import restriction is not inconsistent with U.S. trade commitments.

Farm Bill Issues and Policy Options

While marketing orders and promotion programs will continue to evolve with or without the 1995 farm bill, there are some foreseeable issues (and probably some unforeseeable ones) that may be addressed in the legislation. The 1985 and 1990 farm laws included everything from small amendments to the creation of new research and promotion programs. Given the sensitivity to budget concerns, it would not be surprising to see strong consideration given to shifting to the industry the marketing order administrative costs not already recovered by user fees.

For research and promotion programs, the proposals may have more to do with administration than with operation. To eliminate the need for stand-alone legislation for each new research and promotion program, a template or structure could be adopted to allow commodity groups to form new research and promotion orders within the AMS rulemaking framework. Another possibility for reducing stand-alone legislation for research and promotion programs is to amend the AMAA to allow assessments on imports, which are

not currently authorized. The result could be that new marketing orders would be formed primarily for research and promotion activities.

There are governance issues relating to research and promotion orders that could be addressed in the farm bill. Bloc voting, which was a controversial point in the National Dairy Research and Promotion Program referendum in 1993, is a procedure that essentially enables a vote to be cast more easily for one side of a referendum than for the other side. If a producer wishes to vote with the cooperative's position, no action is required. In contrast, special effort is required for members to vote against the cooperative's position.

Another governance issue is evaluation of whether the program benefits exceed the money paid in assessments and whether the money is optimally allocated to the various uses. Dairy and fluid milk are the only research and promotion programs that have mandated annual evaluations. One view is that the Federal Government, by authorizing research and promotion programs, acquires a responsibility to determine that the program is effective. The other view is that the decision to institute and continue a research and promotion program lies with the commodity interests, which can decide to fund evaluation efforts out of assessments if they choose. The former view seems less practical because evaluation studies require money either that the Government is unwilling to spend or that would consume too much of the assessed funds of small orders relative to the benefits of evaluation.

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Glossary

Allotment. A quantity provision, such as volume control, in a marketing order that determines the amount of a regulated commodity that individual handlers may market.

Federal marketing orders and agreements. A means authorized by legislation for agricultural producers to promote orderly marketing and to collectively influence the supply, demand, price, or quality of particular commodities. A marketing order may be requested by a group of producers and must be approved by the Secretary of Agriculture and a required number of the commodity's eligible producers (usually two-thirds) in specified areas in a referendum. Conformance with the order's provisions is mandatory for all handlers covered by the order. For fruits, vegetables, and specialty crops, an order may limit total marketings, prorate the movement of a commodity to market, or impose [minimum] size and grade standards. See also Federal milk marketing orders in Lipton, 1995. Conformance with a marketing agreement's provisions is mandatory only for handlers who are signatory to the agreement. Federal milk marketing orders specify pricing conditions under which milk is bought within a specified area (Lipton).

Flow to market. A quantity provision in a fruit and vegetable marketing order that does not change the total quantity that can be marketed during a season, but rather controls the rate or time period that quantities can be shipped to markets; includes shipping holidays and prorates.

Free rider. A firm or person who benefits from a collectively funded activity without contributing to its costs. A producer or manufacturer, for example, who does not contribute to a generic advertising campaign for their commodity, may still benefit if the promotion effort results in greater demand for the product (Lipton). (See "unwilling rider.")

Generic advertising and promotion. Promotion of a commodity without reference to the specific farmer (technically applies to handlers or shippers), brand name, or manufacturer. Generic advertising has been used to overcome competition from other products, to increase awareness of lesser known products, and to alter negative opinions about a product. Dairy and beef promotion campaigns are examples of generic advertising. Overseas market development is also an application of generic advertising (Lipton).

Handler. For a fruit and vegetable marketing order commodity, "anyone who receives the commodity from producers, grades and packs it, and sells the commodity to anyone who is responsible for selling, or transporting, or causes the transportation of the commodity to market" (USDA/AMS, 1990). The Agricultural Marketing Agreement Act of 1937 regulates handlers performing marketing functions in interstate or foreign commerce because it is a marketing act that explicitly has no intent to limit or regulate production.

Market allocation. A quantity provision in a fruit and vegetable marketing order specifying a maximum quantity that can be sold for a given use or market (such as domestic market); usually raises producer/handler returns by limiting supplies in a use that is more inelastic, while diverting supplies to a market use with a higher elasticity of demand.

Market support tools. Activities of a research and promotion order or a marketing order that attempt to influence demand through improving both buyers' and sellers' knowledge of a product's availability and uses.

Marketing order. See "Federal marketing orders and agreements."

Orderly marketing. For any marketing order commodity, "an orderly flow of the supply thereof to market throughout its normal marketing season to avoid unreasonable fluctuations in supplies and prices." (AMAA, as amended in 1954).

Parity. A measurement of the purchasing power of a unit (bushel, hundredweight) of farm product. Parity was originally defined as the price that gives a unit of a commodity the same purchasing power today as it had in the 1910-14 base period. In 1948, the parity price formula was revised to allow parity prices for individual commodities to reflect a more recent relationship of farm and nonfarm prices by making the base price dependent on the most recent 10-year average price for commodities. Except for wool, mohair, and certain minor tobaccos, parity is not currently used to set price-support levels for any program crops. However, parity remains a part of permanent legislation (Lipton).

Price discrimination. Charging a higher price in one or more segments of a market than in others for similar but not necessarily identical goods. Charging different prices can allow a firm to realize higher profits. A seller is able to price discriminate if it can divide or segment the market and if consumers differ in their sensitivity to price changes. For example, a seller may charge less for a product in foreign markets (Lipton).

Producer allotments. A quantity provision in a fruit and vegetable marketing order that assigns a maximum quantity that a producer/handler can provide to the market in a single season.

Prorate. A quantity provision in a fruit and vegetable marketing order that tries to even out weekly (or occasionally some other specified time period) shipments.

Reserve pool. A quantity provision in a fruit and vegetable marketing order that requires that some marketable supplies be withheld from the primary (fresh) market for sale in a secondary food market (such as frozen or processed), for sale in a nonfood use, or for stocks to be sold in a future marketing year.

Shipping holiday. A fruit and vegetable marketing order provision that prohibits commercial shipping during periods following certain holidays, usually for 3 to 7 days after Thanksgiving and Christmas, when demand is historically low.

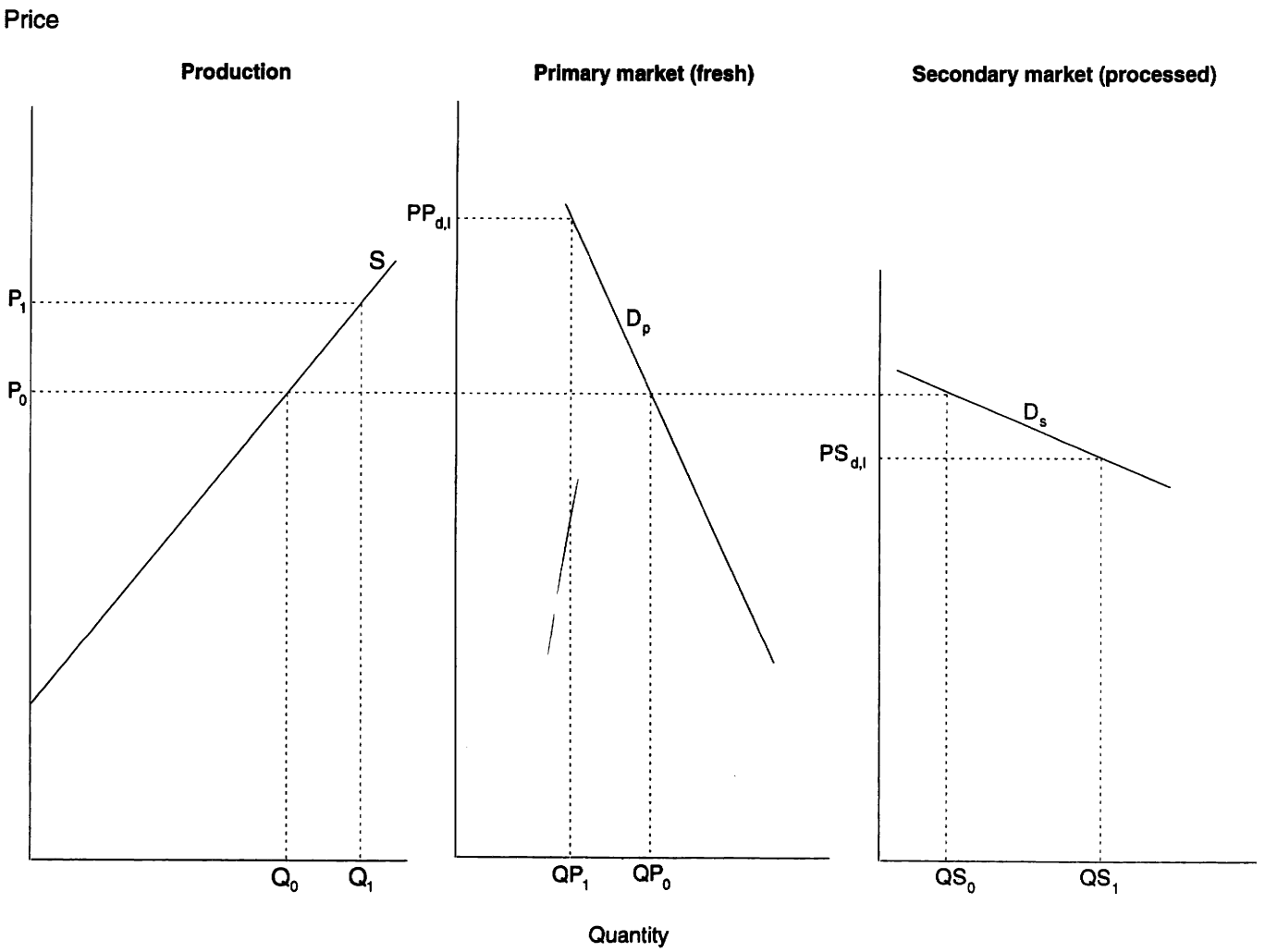
Unwilling rider. In a marketing order or research and promotion order, a producer, handler, or importer bound by the terms of the order who would prefer not to participate; see "free rider."

Appendix: Economics of a Market Allocation

A market allocation usually raises producer returns by limiting supplies in a use that is more inelastic, while diverting supplies to a market use with a higher elasticity of demand. App. fig. 1 illustrates how a market allocation can be used for price discrimination by shifting supplies away from the more inelastic demand fresh market to the less inelastic processed market. P_0 represents the wholesale market price without a market allocation. Q_0 is supplied, and QP_0 and QS_0 are the quantities demanded in the primary and secondary markets. The primary market demand is less elastic than the secondary market demand, as reflected by the steeper slope of D_p relative to D_s. By knowing the relative sizes of the primary and secondary markets and estimating the price elasticity of supply and the respective price elasticities of demand, the marketing order can readily calculate how much product to divert from the primary market to the secondary market to maximize producer revenues. By restricting marketings in the primary market to QP_1, the price is raised to PP_1. The higher price is reflected to producers, resulting in greater production, Q_1. The production increase and the quantity diverted from the primary market are shifted to the secondary market, giving QS_1, which lowers the secondary market price to PS_1. Producers receive a weighted average of PP_1 and PS_1. The benefit to producers depends on the shares of the primary and secondary markets and on the shapes of S, D_p, and D_s, which are shown as linear for simplicity. Further complications can be considered, such as the impact of a foreign supplier attracted by the higher supply price, which could be reflected by a flatter long-run supply curve, S, or the closeness of substitutes

Appendix figure 1

Effect of price discrimination by a marketing order



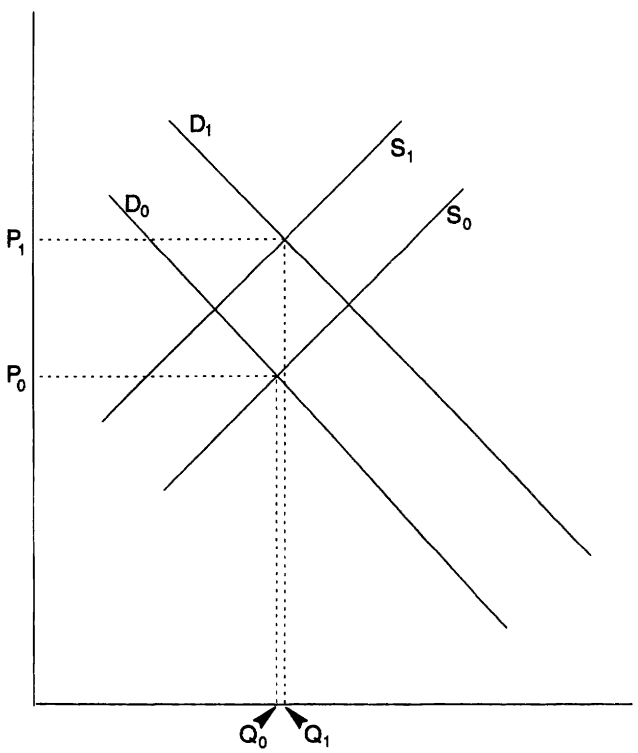
that could effectively flatten the longrun primary demand curve, D_p.

Use of a Quality Standard To Limit Supply

App. fig. 2 depicts a possible outcome of raising a quality standard in a marketing order from initial market equilibrium of price, P_0, and quantity, Q_0. The initial effect of raising the quantity standard is to reduce the quantity that qualifies to be marketed. One could alternatively think of this effect as increasing the cost to S_1 of producing the same quantity because more of some input (such as more labor, more fertilizer, or more costly seeds) is required to achieve the higher quality. In this figure, consumers strongly prefer the better quality product, shifting demand to D_1 and actually resulting in more produce, Q_1, being marketed at a higher price, P_1, than before the quality standard was increased. Results for a particular market depend on the shapes of the supply and demand curves, which may not be linear, and on the nature of the curve shifts, which may not be parallel.

Appendix figure 2

Effect of a quality (grade) standard by a marketing order



Effects of Generic Advertising on Consumer Demand

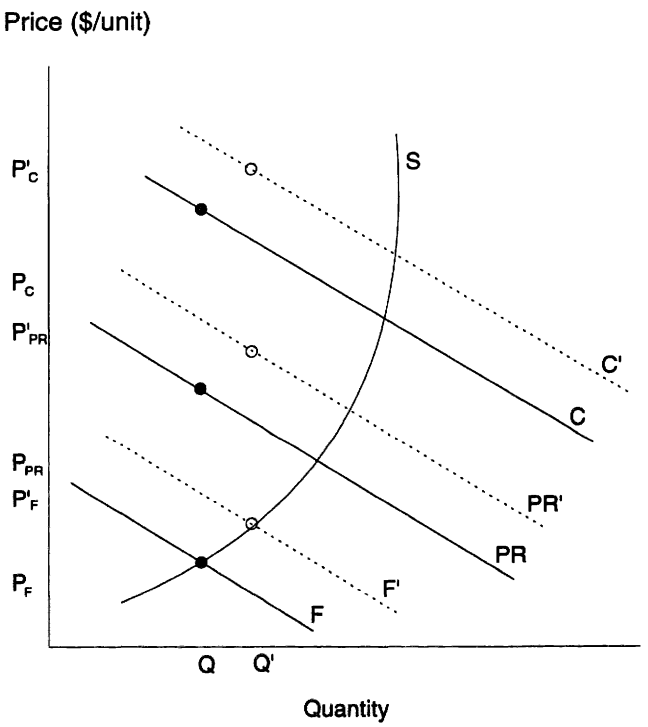
App. fig. 3 characterizes consumer demand expansion for a commodity from a checkoff program and the resulting demand expansion for producers and processors.

Consumer demand prior to the demand expansion is measured by the demand curve labeled C. Consumer demand expansion shifts the consumer demand curve to the higher level C'. The higher demand level reflects consumers' willingness to pay a higher price for each amount of the commodity that might be supplied because they place more value on the commodity.

For producers, the relevant demand for the commodity produced is measured by the farm-level derived demand curve, F. Demand expansion for producers shifts their farm-level derived demand curve to the higher level, F'. The farm level demand curve depends on the consumer demand curve and on the structure

Appendix figure 3

Effects of an increase in consumer demand on farmer and processor demand, price, and quantity



F, PR, and C = Farmer, processor, and consumer demand curves.
S = Farmers' supply curve.
P_F, P_{PR}, and P_C = Farmer, processor, and consumer prices.
Q = Quantity supplied by farmers.
Note: Curves and variables after the consumer demand shift are designated with an apostrophe superscript.

of and the technologies used in the marketing sector. The farm level demand curve is separated from the consumer demand curve by the total marketing margin—the consumer price of the commodity (or the amount paid by consumers for the product(s) produced from one unit of the commodity) minus the farm price of the commodity. Marketing margins are the costs and returns of the firms in the marketing sector.

The processor demand curve for the finished commodity or product, demand curve PR in app. fig. 3, lies between the consumer and farm level demand curves. This demand curve, like that for producers, depends on consumer demand and on the structure and technologies used in the marketing sector. Demand expansion for processors shifts their demand curve to the higher level, PR'.

The solid (empty) circles in app. fig. 3 correspond with the quantity supplied by producers and the prices at the three market levels before (after) the increase in consumer demand from a checkoff program. The quantity supplied by farmers increases from Q to Q' and their price increases from P_F to P'_F as a result of the movement along the farmer supply curve to their higher demand curve, F'. In addition, the processor price increases from P_{PR} to P'_{PR} and the consumer price increases from P_C to P'_C, reflecting the increase in demand at each of these market levels. As a result, the larger quantity, Q', is supplied by farmers. The price increase at the processor level is larger than at the producer level if the marketing margin between processors and producers increases. This outcome implies that not all of the consumer price increase is passed on to producers. The farmers' supply curve, in app. fig. 3, may shift slightly to the left because the assessments increase the cost of production. This shift would result in slightly less quantity supplied and slightly higher prices than those depicted in app. fig. 3.

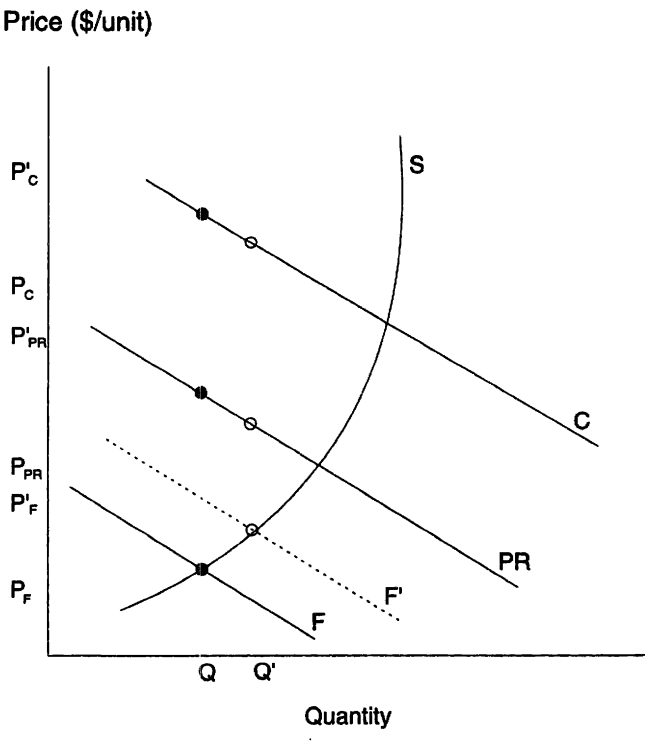
The amount of each demand-curve shift together with the producer response to price, as measured by movement along their supply curve, determines the quantity produced and marketed and the prices at the various market levels. The resulting prices and quantity determine the revenue produced by the checkoff program at each market level. The cost of the increased production must be subtracted from the increased producer revenue to arrive at the net producer revenue provided by a checkoff program. The farmer supply curve between the original and higher farm level demands is probably horizontal or close to horizontal, implying no or only a small price increase. Increased revenue comes largely from the increased amount supplied, that is, from a larger market share.

Effects of Checkoff Program Investment in Research

App. fig. 4 characterizes an improvement in processing efficiency. The farm-level demand curve is shifted to a higher level, but the consumer and processor demand curves are not affected. App. fig. 4 shows that the consumer price has decreased and quantity consumed has increased and that both farmer price and quantity supplied have increased. The price increase is probably small because the farmer supply curve between the original and higher farm-level demand curves is most likely nearly horizontal. The marketing margin between farmers and processors is reduced because of the decrease in processing costs. The difference between the farmer and processor demand curves includes processor costs. The total marketing margin is also decreased, reflecting the overall reduction in marketing costs.

Appendix figure 4

Effects of an increase in processor efficiency on farmer and processor demand, price, and quantity



F, PR, and C = Farmer, processor, and consumer demand curves.
S = Farmers' supply curve.
P_F, P_{PR}, and P_C = Farmer, processor, and consumer prices.
Q = Quantity supplied by farmers.
Note: Higher farmer demand curve and resulting prices and quantities are designated with an apostrophe superscript.

Appendix table 1—Selected characteristics of Federal marketing orders

Product	Year instituted	Status	Quantity	Farm value	Producers	States covered	Other policies	Grade*	Size*	Pack and container	Flow to market	Market allocation	Reserve pool	Producer allotments	Research and development	Advertising
			1,000 pounds	*1,000 dollars*	*------Number------*											
Florida citrus	1939	A				1		x	x	[3]	[4]					
Texas oranges and grapefruit	1960	A	188,718	19,897	2,000	1	S-Res	x	x	x					x	x
California-Arizona naval oranges	1953	#	2,209,463	276,325	3,750	2	S-Res		x		x				x	
California-Arizona Valencia oranges	1954	#	1,271,850	262,372	3,700	2	S-Res		x		x				x	
California-Arizona lemons	1941	#	959,500	215,382	2,500	2			x		x				x	
Florida limes	1955	A	22,000	1,142	79	1		x	x	x	x				x	x
Florida interior grapefruit	1965	T				1										
Florida avocados	1954	A	8,800	3,608	300	1		x	x	x	[4]				x	x
California nectarines	1958	A	402,000	102,421	1,000	1		x	x	x					x	x
California peaches[14]	1939	A	447,000	87,941	1,600	1	S-R&P	x	x	x					x	x
Georgia peaches[10]	1942	S				1		x	x						x	
Colorado peaches	1939	T				1	S-R&P									
California kiwifruit	1984	A	89,200	16,502	650	1	S-R&P	x	x	x					x	
Washington peaches[11]	1960	S				1	S-R&P	x	x	x					x	
Washington apricots	1957	A	16,200	6,280	400	1	S-R&P	x	x	x					x	
Washington sweet cherries	1957	A	100,000	77,500	1,100	1	S-R&P	x	x	x					x	
Washington-Oregon fresh prunes	1960	A	18,200	1,657	350	2	S-R&P	x	x	x					x	
California dessert grapes	1980	A	201,801	140,000	60	1	S-R&P	x	x	x	[4]				x	
California Tokay grapes[16]	1940	A	301,944	800	35	1	S-R&P	x	x	x	x				x	x
Pacific Coast winter pears	1939	A	710,400	92,217	1,850	3		x	x						x	x
Hawaii papayas	1971	A	58,200	13,502	400	1		x	x	x					x	x
Cranberries (10 States)	1962	A	395,800	208,032	900	10		[6]	[6]					x	x	
Washington-Oregon Bartlett pears	1966	A	760,000	25,290	1,800	2		x	x						x	
California olives	1965	A	244,000	56,741	1,200	1		x	x						x	x
Idaho-east Oregon potatoes	1941	A	2,712,600	113,883	2,200	2	S-R&P	x	x	Pack						
Washington potatoes	1949	A	1,158,000	43,669	450	1	S-R&P	x	x	Pack						
Oregon-California potatoes	1942	A	649,400	43,507	550	2	OR-R&P	x	x	Pack					x	
Colorado potatoes	1941	A	1,884,100	126,988	400	1	S-MO	x	x	Pack					x	
Maine potatoes[12]	1954	In				1		x	x	x						
Virginia-North Carolina potatoes	1948	A	132,200	14,636	150	2	NC-R&P	x	x							

See footnotes at end of table.

Continued—

Appendix table 1—Selected characteristics of Federal marketing orders—Continued

Product	Year instituted	Status	Quantity	Farm value	Producers	States covered	Other policies	Grade*	Size*	Pack and container	Flow to market	Market allocation	Reserve pool	Producer allotments	Research and development	Advertising
			1,000 pounds	*1,000 dollars*	*-----Number-----*											
Georgia Vidalia onions	1989	A	149,400	44,372	240	1	S-R&P								x	x
Idaho-Oregon onions	1957	A	1,063,800	139,834	550	2		x	x	Pack	[4]				x	x
South Texas onions	1961	A	276,800	72,522	80	1		x	x	x	[4]				x	
Texas Valley tomatoes[1, 12]	1959	In				1		x	x	x					x	x
Florida tomatoes	1955	A	1,281,600	371,536	250	1	S-R&P	x	x	x					x	x
Florida celery[15]	1965	S	1,344,000	58,670	7	1	S-R&P	x	x	x	x			x	x	x
South Texas lettuce[9]	1960	In				1		x	x	x	x				x	
South Texas melons	1961	S	224,000	40,682	36	1		x	x	x					x	
California almonds	1950	A	490,000	911,430	7,000	1		x	[5]			x			x	x
Oregon-Washington filberts	1949	A	76,400	24,191	950	2	OR-R&P	x	x	Pack		x			x	x
California walnuts	1948	A	520,000	364,000	5,000	1		x	x	Pack		x	x		x	
Far West spearmint oil	1980	A	2,258	26,373	280	7							x	x	x	
California dates	1955	A	50,000	24,500	135	1		x	x	Cont.	x				x	x
California raisins[7]	1949	A	3,334,000	361,739	4,800	1		x	x		x		x		x	x
California prunes[7]	1949	A	242,000	140,360	1,300	1		x	x	Pack		x	x		x	
Peanuts (not M.A. 146)[8, 13]	1990	A				All U.S.	Price support	x	x							
Peanuts (M.A. 146)[2, 8]	1965	A				16		x	x							
Milk (38 orders)	@	@	104,000,000	N	92,840	45	Yes									
	M			13.5 billion	673 handlers		SP								x	x
Hops	1966	T-1987	N/A	N/A	N/A	3										

Note: Data are from 1993 unless specified otherwise.

*Restrictions on imports as well as domestic production for tomatoes, black olives, prunes, avocados, limes, grapefruit, Irish potatoes, oranges, onions, walnuts, dates, filberts, table grapes, raisins, kiwifruit, nectarines, and plums.

M.A. = Marketing agreement.
@ = See appendix table 2.
A = Active.
S = Suspended.
S-Res = State research program.
S-MO = State marketing order.
N = 1993 gross value at weighted average of milk marketing order blend prices adj. to 3.5-percent butterfat.
[1]Order only.
[3]Export only.
[5]Reserve only.
[7]Contains authority for a voluntary producer diversion program.
[9]Order suspended 7/17/92-7/17/95.
[11]Order suspended 3/1/93. Referendum conducted 11/13-12/10/93.
[13]Administered by the Agricultural Marketing Service.
[15]Orders suspended 1/12/95-12/31/97.

= Termination announced.
N/A = No farmers, no production, and no value of production are subject to the terminated order.
In = Inactive.
T = Terminated.
S-R&P = State research and promotion.
M = The number of Federal milk orders peaked at 83 in 1962. However, the proportion of all milk regulated under Federal milk orders is higher in 1993 than in 1962.
SP = Dairy price support program. State milk orders.
[2]Agreement only.
[4]Shipping holiday.
[6]Applies only to withheld (reserve) cranberries.
[8]Contains indemnity provisions for aflatoxin damaged peanuts.
[10]Order suspended 3/1/93-2/28/95.
[12]Inactive. No committee appointed.
[14]Order suspended for pears effective 4/4/94.
[16]AMS has announced its intention to terminate this order.

Appendix table 2—Federal milk orders in effect on December 31, 1993, with number assigned each order in the code of Federal regulations and date on which each order became effective

Federal milk order	CFR-Chapter 7 part number	Date effective
Alabama-West Florida	1093	5-1-82
Black Hills	1075	8-1-54
Carolina	1005	9-1-90
Central Arizona	1131	12-1-55
Central Arkansas	1108	12-1-55
Central Illinois	1050	1-1-67
Chicago Regional	1030	7-1-68
Merger of: Milwakee, WI, 12-1-50		
Rock River Valley, 6-1-52, (Rockford-Freeport, 9-1-49)		
Northwestern Wisconsin, 12-1-58		
Madison, WI, 6-1-62		
Northwestern Indiana, 4-1-65 (South Bend-La Porte-Elkhart, 8-1-58), (South Bend-La Porte, 12-1-47, merger of LaPorte County, IN, 11-13-37 and St. Joseph County, IN, 7-1-43).		
Eastern Colorado	1137	12-1-65
Merger of: Eastern Colorado, 11-1-61		
Colorado Springs-Pueblo, 2-1-59		
Eastern Ohio-Western Pennsylvania	1036	5-1-69
Merger of: Clarksburg, WV, 11-1-55		
Eastern Ohio-Western Pennsylvania, 7-1-68		
Merger of: Northeastern Ohio, 8-1-59		
Merger of: Cleveland, OH, 8-1-46		
Akron-Stark County, 2-1-57		
Merger of: Akron, OH, 2-1-55		
Stark County, 12-1-52		
Wheeling, WV, 11-1-55		
Youngstown-Warren, 8-1-61		
Eastern South Dakota	1076	5-1-65
Merger of: Eastern South Dakota, 5-1-55		
Sioux Falls-Mitchell, SD, 9-1-52		
Georgia	1007	3-1-69
Great Basin	1139	4-1-88
Merger of: Great Basin, 11-1-59		
Lake Mead, 8-1-73		
Greater Kansas City	1064	9-1-66
Merger of: St. Joseph, MO, 10-1-61		
Greater Kansas City, 10-1-57		
Merger of: Greater Kansas City, 12-1-36		
Topeka, KS, 8-16-36		
Greater Louisiana	1096	4-1-76
(Northern Louisiana, 8-1-58), (Shreveport, LA, 4-1-55)		
Indiana	1049	1-1-69
Merger of: Indianapolis, IN, 3-1-61		
Fort Wayne, IN, 2-1-37		
Iowa	1079	5-1-77
Merger of: Cedar Rapids-Iowa City, 9-1-51		
Des Moines, IA, 10-1-58		
North Central Iowa, 11-1-57		
Quad Cities-Dubuque, 1-1-61		
Merger of: Dubuque, IA, 10-1-36		
Quad Cities, 12-1-51		
Merger of: Quad Cities, 2-1-40		
Clinton, IA, 10-1-44	1046	3-1-62

Continued--

Appendix table 2—Federal milk orders in effect on December 31, 1993, with number assigned each order in the code of Federal regulations and date on which each order became effective—Continued

Federal milk order	CFR-Chapter 7 part number	Date effective
Louisville-Lexington-Evansville	1046	3-1-62
Merger of: Louisville-Lexington, 3-2-60, (Louisville, KY, 4-1-40)		
Ohio Valley, 3-1-60		
Michigan Upper Peninsula	1044	12-1-58
Middle Atlantic	1004	8-1-70
Merger of: Delaware Valley, 12-1-63		
Merger of: Philadelphia, PA, 4-1-42		
Wilmington, DE, 6-16-56		
Upper Chesapeake Bay, 2-1-60		
Washington, DC, 7-1-59		
Nebraska-Western Iowa	1065	5-1-68
Merger of: Nebraska-Western Iowa, 11-1-61		
Merger of: Omaha-Lincoln-Council Bluffs, 9-1-52, (Omaha-Council-Bluffs, 4-5-39)		
Platte Valley, 5-1-57		
Sioux City, IA, 4-16-40		
New England	1001	4-1-76
Merger of: Boston Regional, 7-1-71, (Massachusetts-Rhode Island-New Hampshire, 12-1-67)		
(Massachusetts-Rhode Island, 10-1-64)		
Merger of: Springfield, MA, 1-1-50		
Worchester, MA, 1-1-50		
Southeastern New England, 1-1-59		
Boston, MA, 7-1-59		
Merger of: Boston, MA, 8-1-37		
Merrimack Valley, 4-1-54, (Lowell-Lawrence, 2-12-39)		
Connecticut, 4-1-59		
New Mexico-West Texas	1138	12-1-91
Merger of: Texas Panhandle, 2-1-56		
Lubbock-Plainview, TX, 7-1-62		
Rio Grande Valley, 7-1-62		
New Orleans-Mississippi	1094	4-1-76
(New Orleans, LA, 10-1-39)		
New York-New Jersey	1002	8-1-57
(New York, NY, 9-1-38)		
Ohio Valley	1033	8-1-70
Merger of: Greater Cincinnati, 11-23-42		
Columbus, OH, 2-1-46		
Miami Valley, 9-1-67, (Dayton-Springfield, OH, 7-1-45)		
Northwestern Ohio, 1-1-65		
Merger of: North Central Ohio, 7-1-57, (Lima, OH, 8-1-49)		
Toledo, OH, 9-16-38		
Tri-State, 8-1-45		
Pacific Northwest	1124	2-1-89
Merger of: Puget Sound-Inland, 1-1-84		
Merger of: Puget Sound, 6-1-51		
Inland Empire, 4-1-56		
Oregon-Washington, 1-1-70		
Paducah, KY	1099	1-1-48
Southeastern Florida	1013	9-1-57

Continued—

Appendix table 2—Federal milk orders in effect on December 31, 1993, with number assigned each order in the code of Federal regulations and date on which each order became effective—Continued

Federal milk order	CFR-Chapter 7 part number	Date effective
Southern Illinois-Eastern Missouri	1032	5-1-88
(Southern Illinois, 1-1-67), (Suburban St. Louis, 6-1-60)		
Southern Michigan	1040	4-1-73
Merger of: Southern Michigan, 8-1-65		
Merger of: Southern Michigan, 2-1-60, (Detroit, MI, 9-1-51)		
Muskegon, MI, 10-1-53		
Upstate Michigan, 11-1-55		
Southwest Plains	1106	5-1-87
Merger of: Southwest Plains, 1-1-83		
Merger of: Neosho Valley, 12-1-51		
Oklahoma Metropolitan, 5-1-57		
Merger of: Oklahoma City, OK, 5-1-50		
Tulsa-Muskogee, OK, 8-1-53		
Merger of: Tulsa, OK, 5-1-50		
Muskogee, OK, 7-1-51		
Red River Valley, 11-1-58		
Wichita, KS, 9-1-66		
Merger of: Wichita, KS, 6-1-44		
Southwest Kansas, 7-1-54		
Fort Smith, AR, 9-1-52		
Southwestern Idaho-Eastern Oregon	1135	7-1-81
Tampa Bay	1012	1-1-66
Tennessee Valley	1001	4-1-76
Merger of: Appalachian, 3-1-61		
Merger of: Appalachian, 11-1-54		
Bluefield, WV, 11-1-56		
Chattanooga, TN, 9-1-56		
Knoxville, TN, 8-1-49		
Texas	1126	7-1-75
Merger of: Austin-Waco, TX, 2-1-55		
Central West Texas, 12-1-52		
Corpus Christi, TX, 7-1-55		
North Texas, 10-1-51		
San Antonio, TX, 7-1-52		
South Texas, 10-1-68		
Upper Florida	1006	1-1-67
Upper Midwest	1068	6-1-76
Merger of: Duluth-Superior, 5-5-41		
Minneapolis-St. Paul, MN, 11-3-45		
Minnesota-North Dakota, 11-1-67		
Southwestern Minnesota-Northern Iowa, 5-1-69		
Western Colorado	1134	12-1-58

Appendix table 3—Research and promotion programs authorized by individual statutes

Commodity	Status	Administrative body			Assessments							Referendum and approval requirement	USDA costs reimbursed	Credit for State program	Enforcement
		Name	Authorized composition	How appointed	Authorized rate	Coverage	Refund allowed	Imports assessed	Collected on domestic production[1]	Collected on imports[1]	Collected (refunded) total[1]				
Beef	Implemented in 1986	Cattlemen's Beef Promotion and Research Board	Producers and importers based on cattle numbers per State or unit (Currently 101 producers and 6 importers)	By Secretary from nominations by elegible organizations	$1 per head	All cattle producers and importers	No	Yes	$73.7 million	$7.3 million	$81.0 million	Delayed until 22 months after program start Referendum May 1988; approved by 79% Majority vote[2]	Referenda and administrative	Up to 50 cents per head	Civil penalty up to $5,000 assessed by Secretary: enforced by Attorney General
									To Board $44.2 million						
									To States $3618 million						
Cotton	Implemented in 1966-67	Cotton Board	At least one rep from each cotton-producing State and importers; and up to 15% to be consumer advisor (Currently 20 producers, 4 importers, and 1 consumer advisor)	By Secretary from nominations by elegible organizations	$1 per bale plus up to 1% of bale value	Producers and importers	No	Yes	$36.9 million	$14.0 million	$50.9 million	Initiated by referendum prior to program start Two-thirds vote or majority representing two-thirds volume[2]	Up to $300,000 for referenda; up to 5 staff years for administrative	No	Monetary penalty of $1,000 enforced by Attorney General
Dairy	Implemented in 1984	National Dairy Promotion and Research Board	36 milk producers	By Secretary from nominations by elegible organizations and other interested parties	15 cents per cwt	Dairy farmers	No	No	$226.32 million	—	$226.32 million	Delayed until 18 months after program start Referendum Aug. 1985; approved by nearly 90% Majority vote[2]	Referenda and administrative	Up to 10 cents cwt	Civil penalty up to $1,000 assessed by Secretary; enforced by Attorney General.
									To Board $76.31 million						
									To States $150.01 million						
Eggs	Implemented in 1976	American Egg Board	Up to 20 members consisting of egg producers and consumers (Currently 18 producers)	By Secretary from nominations by elegible organizations	Up to 20 cents per 30-doz case (Current rate is 5 cents)	Producers with 75,000 or more laying hens	No	No	$7.95 million	—	$7.95 million	Initiated by referendum prior to program start Two-thirds vote or majority representing two-thirds volume[2]	Referenda and administrative	No	Civil penalty of $500-$5,000 assessed by Secretary; cease and desist authority
Flowers and plants	Inactive program rejected in 1983-84 referendum	Floraboard	Up to 75 producers and importers	By Secretary from nominations by eligible organizations	0.5% of value of flowers and plants sold first 2 years; annual increases of 0.25% to maximum of 1.5% thereafter	Producers and importers with sales over $100,000	Yes	Yes	—	—	—	Initiated by referendum prior to program start Two-thirds vote and two-thirds volume[2]	Referenda and administrative	No	Same as eggs

Continued—

Appendix table 3—Research and promotion programs authorized by individual statutes—Continued

Commodity	Status	Administrative body			Assessments							Referendum and approval requirement	USDA costs reimbursed	Credit for State program	Enforcement
		Name	Authorized compositions	How appointed	Authorized rate	Coverage	Refund allowed	Imports assessed	Collected on domestic production[1]	Collected on imports[1]	Collected (refunded) total[1]				
Fluid milk	Implemented in 1993	National Fluid Milk Processor Promotion Board	One rep from each of 12-15 geographic regions Five additional at large, of which at least 1 must be a public rep (Currently 20 members)	By Secretary from nominations by fluid milk processors, eligible organizations, only interested parties	20 cents per 100 lbs of all fluid milk products marketed	Every processor who processes and markets commercially more than 500,000 lbs of fluid milk in consumer type packages per month in the U.S.	No	No	$53.0 million	—	$53.0 million[14]	Initiated by referendum held within 60 days prior to program start Referendum Sept. 1993; approved by 71.7%, representing 76.7% of volume Majority vote and 60% of volume[3]	Referenda and administrative	Yes[15]	Same as eggs
Fresh cut flowers and fresh cut greens	Not yet implemented Enacted December 1993	PromoFlor Council	14 handlers; 3 producer-handlers; 3 importer-handlers; 3 retailers; 2 producers (1 each east and west of Mississippi River)	By Secretary from nominations by handlers and retail organizations	0.5% of gross sales during first 3 years; annual increases or decreases 0f 0.25% with maximum of 1%	Handlers with sales of $750,000	Only prior to initial referendum	Yes	—	—	—	Initial referendum to be held within 3 years after program begins Majority vote[4]	Referenda and administrative	No	Same as eggs
Honey	Implemented in 1987	Honey Board (Nominations Committee to consist of not more than 1 member per State Currently 40 producer members)	7 producers; 2 handlers; 2 importers or 1 importer and 1 exporter; 1 public; 1 marketing cooperative official	By Secretary from nominations by handlers and retail organizations	$0.01 per lb	Producers and importers	No	Yes	$1.7 million	$1.1 million	$2.8 million	Initiated by referendum prior to program start Continuance referendum Aug. 1991; approved by 90%[5]	Referenda and administrative	No	Same as eggs
Limes[6]	Implemented in 1992	Lime Board	3 producers; 3 importers; 1 public	By Secretary from nominations by producers and importers, except public rep nominated by Board	Up to $0.01 per lb	Producers producer handlers; importers of more than 200,000 lbs yearly	Only prior to initial referendum	Yes	—	—	—	Initial referendum delayed until 30 months after assessments begin Majority vote representing 50% of volume[7]	Referenda and administrative	No	Same as eggs

Continued—

Appendix table 3—Research and promotion programs authorized by individual statutes—Continued

Commodity	Status	Administrative body			Assessments							Referendum and approval requirement	USDA costs reimbursed	Credit for State program	Enforcement
		Name	Authorized compositions	How appointed	Authorized rate	Coverage	Refund allowed	Imports assessed	Collected on domestic production[1]	Collected on imports[1]	Collected (refunded) total[1]				
Mohair	Implemented in 1966	Mohair Council of America	Not specified in statute	Not specified in statute	Pro rata deduction from incentive payments	CCC deducts assessments from incentive payments to mohair producers	No	No	$0.7 million	—	$0.7 million	Initiated by referendum prior to program start Majority vote representing 50% of volume[7]	No	No	Not specified in statute
Mushrooms	Implemented in 1993	Mushroom Council	4-9 producers and importers based on production and imports (Currently 9 producers)	By Secretary from nominations by producers and importers	1st year, up to 1/4 cent per lb; 2nd year, up to 1/3 cent; 3rd year, up to 1/2 cent; subsequent years, up to 1 cent	Producers and importers of more than 500,000 lbs per year	No	Yes	$1.1 million	$9.5 thousand	$1.1 million	Initiated by referendum prior to program start Referendum Aug. 24-Sept. 28, 1992; approved by 68% Majority vote representing 50% of volume[9]	Referenda and administrative	No	Same as eggs
Pecans*	Implemented in 1992 Terminated March 15, 1994	Pecan Marketing Board	8 growers; 4 shellers; 1 handler; 1 importer; 1 public; 1 non-voting	By Secretary from nominations by growers and shellers, except importer and public rep nominated by board	Prior to referendum, 1/2 cent per lb for inshell; afterward, up to 2 cents per lb Twice the rate for shelled	Growers, grower-shellers, importers	Only prior to initial refe-rendum	Yes	$0.66 million	$0.27 million	$0.93 million	Initial referendum delayed until no later than 2 years after program begins Referendum Oct. 1993 Referendum terminated program Majority vote[7]	Referenda and administrative	No[10]	Civil penalty of $1,000-$10,000 assessed by Secretary; cease and desist order authority
Pork	Implemented in 1986	National Pork Board (Delegate Body to consist of at least 2 producers from each State and importers Currently 162 producers and 7 importers)	Producers representing at least 12 States and importers (Currently 14 producers and 1 importer)	By Secretary from nominations made by the National Pork Producers Delegate Body	0.35 of 1% of market value; may increase 0.1% annually, not to exceed 0.50% New rate of 0.35 effective 12/1/91 was 0.25 of 1%)	All producers of porcine animals and importers	No	Yes	$37.1 million	$2.0 million	$39.1 million	Delayed until 24-30 months after program start Referendum Sept. 1988; approved by 77.5% Majority vote[11]	Referenda and administrative	As deter-mined by Delegate Body	Civil penalty up to $1,000 assessed by Secretary; cease and desist order authority
									To Board $31.1 million						
									To States $8.0 million						

Continued—

Appendix table 3—Research and promotion programs authorized by individual statutes—Continued

Commodity	Status	Administrative body			Assessments							Referendum and approval requirement	USDA costs reimbursed	Credit for State program	Enforcement
		Name	Authorized compositions	How appointed	Authorized rate	Coverage	Refund allowed	Imports assessed	Collected on domestic production[1]	Collected on imports[1]	Collected (refunded) total[1]				
Potatoes FY-94	Implemented in 1972	National Potato Promotion Board	1 producer per State, plus up to 5 importers and 1 public rep (Currently 100 producers, 1 public, 2 importers)	By Secretary from nominations by producers and importers Public rep nominated by Board	$0.02 per cwt or up to 1/2 of 1% of immediate past 10 CY year U.S.	Producers growing 5 or more acres and importers	No	Yes	$7.4 million	$0.467 million	$7.9 million	Initiated by referendum held prior to program start Majority vote[7]	Referenda and administrative	No	Same as eggs
Soybeans	Implemented in 1991	United Soybean Board	Producers based on geographic basis (Currently 60 producers representing 29 States and 2 combined units plus 3 temporary members)	By Secretary from nominations by each State unit	1/2 of 1% of net market value of soybeans sold	Producers	Yes[12]	No	$58.0 million **To Board $23.5 million** **To States $23.5 million**	—	$58.0 million ($11.0 million)	Delayed referendum passed by 54% majority Majority vote[13]	Referenda and administrative	Up to 1/4 of 1% of net market price	Civil penalty up to $1,000 assessed by Secretary: cease and desist order authority
Watermelons	Implemented in April 1990	National Watermelon Promotion Board	Equal number of handlers and producers; one public rep; and at least one importer (Currently 14 producers, 14 handlers, 1 importer, 1 public member)	By Secretary from nominations by producers, handlers, and importers Public rep nominated by Board	Fixed by Secretary, 2 cents per cwt for producer and handlers, 4 cents per cwt for importers	Producers growing 10 or more acres; all handlers; and importers of 150,000 lbs or more per year	No	Yes	$0.85 million	—	$0.85 million ($0.20) million	Initiated by referendum prior to program start Majority vote[7]	Referenda and administrative	No	Same as eggs
Wheat	Inactive Terminated in 1986	Wheat Industry Council	20 members consisting of producers, processors, and consumers	By Secretary from nominations by eligible organizations	Not to exceed 5 cents per cwt	End-product manufac-turers	Yes	No	—	—	—	Initiated by referendum prior to program start Two-thirds vote or majority representing two-thirds volume[2]	Referenda and administrative	No	Monetary penalty of $1,000 enforced by Attorney General

Continued—

Appendix table 3—Research and promotion programs authorized by individual statutes—Continued

Commodity	Status	Administrative body			Assessments							Referendum and approval requirement	USDA costs reimbursed	Credit for State program	Enforcement
		Name	Authorized compositions	How appointed	Authorized rate	Coverage	Refund allowed	Imports assessed	Collected on domestic production[1]	Collected on imports[1]	Collected (refunded) total[1]				
Wool[8]	Implemented in 1955	American Sheep Industry Association	Not specified in statute	Not specified in statute	Pro rata deductions from incentive payments	CCC deducts assessments from incentive payments to wool producers	No	No	$7.3 million	—	$7.3 million	Initiated by referendum prior to program start Majority vote or majority of volume	No	No	Not specified in statute

— = No collections.
*Pecan program terminated 3-15-94.
[1]Figures represent annual collections and refunds, where applicable, for the most recent 12-month period for which data are available.
[2]Secretary to hold suspension/termination referendum if requested by 10 percent of those covered under the program.
[3]Secretary to hold suspension/termination referendum if requested by the Board or by those processors who marketed 10 percent or more of the volume of fluid milk products marketed by all processors.
[4]Beginning 3 years after initial referendum, Secretary to hold suspension/termination referendum if requested by the Council or by 30 percent or more of the handlers or at the Secretary's discretion.
[5]Secretary to hold suspension/termination referendum every 5 years or if requested by the Board or by 10 percent of those covered under the program.
[6]Act amended December 1993 to change the scientific name of limes, increase exemption level, change size and composition of Board, and delay referendum until 30 months after assessments begin. Before the 1993 amendment, the program was inactive.
[7]Secretary to hold suspension/termination referendum if requested by the Board or by 10 percent of those covered under the program.
[8]Program authorized by the National Wool Act of 1954. Secretary enters into a promotion and research agreement with producer group.
[9]Secretary to hold suspension/termination referendum 5 years after order becomes effective, and if requested by the Board or by 30 percent of producers and importers.
[10]Board will collect one-fourth cent per pound special assessment, in addition to the Federal assessment, if requested by a State and approved by the Secretary-currently approved for Kansas and Oklahoma.
[11]Secretary to hold suspension/termination referendum if requested by 15 percent of producers and importers. No more than one referendum will be held every 2 years.
[12]After initial referendum, refunds will be paid once a year from an escrow account on a pro rated basis. Secretary required to conduct a producers poll to determine if they want a referendum conducted on whether to continue refunds.
[13]Poll is required of producers every 5 years to determine if they want a reconfirmation referendum to be conducted; or if requested by 10 percent covered under the program.
[14]Collection period was Feb.-July 1994.
[15]For California only.

Appendix table 4—Selected characteristics of Federal research and promotion programs

Commodity	Branded advertising A = Allowed R = Required N = Not allowed	Exclusionary provisions[1] A = Allowed R = Required N = Not allowed	Bloc voting A = Allowed R = Required D = Done N = Not allowed	Funds collected before initial referendum A = Allowed R = Required D = Done N = Not allowed
Beef	N[2]	N	N	R
Cotton	N	N	N	N
Dairy	A[3]	N	A	R
Eggs	N	N	N	N
Fluid milk	N	N	N	N
Fresh cut flowers and fresh cut greens	N	N	N	R
Honey	N	N	N	N
Limes	N	N	N	A
Mohair	N	N	A	N
Mushrooms	N	N	N	N
Pecans[4]	N	N	N	D
Pork	N[2]	N	N	R
Potatoes	N	N	N	A/D
Soybeans	N	N	N	R
Watermelons	N	N	N	N
Wheat	N	N	N	N
Wool	N	N	A	N

[1]The exclusionary provision allows a proprietary firm or cooperative to be at least partly excluded from assessments because of their promotion efforts.
[2]Minor amount of check off funds used in brand promotion.
[3]Limited by Board resolution to the creation and support of a new dairy product.
[4]Pecan Program terminated 3-15-94.

Appendix table 5—Commodity research and promotion program expenditures by category

Budget item	Beef FY 94	Cotton	Dairy CY 94	Eggs FY 93	Fluid milk[1]	Honey	Limes[2]	Mohair
				Dollars				
Domestic generic advertising	24,300,000[3]	19,825,000	59,887,000	2,679,990	40,025,000	1,984,460		FY 94
Foreign generic advertising	4,800,000	261,000	900,000			326,953		403,610
Domestic branded advertising		—	319,000	—	0	—		153,000
Foreign branded advertising		—	0	—	0	—		
Nutrition education		—	2,412,000	1,071,784	0	—		
Nutrition research	3,400,000[4]	—	4,246,000	500,000	0	—		
New product development		8,615,000	5,143,000	23,422	0	152,500[5]		
Public relations	8,200,000[6]	782,000	1,247,000	—	5,000,000	191,923		2,800
Program evaluation	200,000	—	2,580,000	—	100,000	79,000		
Contributions to State R&P programs	36,400,000	—	151,052,000	—	5,130,000	—		
Contributions to trade associations		—	0	—	0	—		
Oversight	250,000	170,000	376,000	70,167	600,000	106,250		0
Administration	2,300,000	3,704,400	2,508,000	223,530	1,520,000	132,150		163,329[7]
Other	450,000[8] 100,000[13]	16,082,000	0	1,995,292[9]	100,000[10] 325,000[14]	1,165,835[11]		67,000[12] 10,500[14]
Total	44,000,000	49,439,000	230,670,000	6,564,185	52,800,000	4,139,071		732,789

See footnotes at end of table.

Continued—

Appendix table 5—Commodity research and promotion program expenditures by category—Continued

Budget item	Mushrooms[15]	Pecans[16]	Pork CY 93	Potatoes FY 94	Soybeans	Watermelons
	---Dollars---				*Million dollars*	*Dollars*
Domestic generic advertising			20.0	3,235,000		275,000
Foreign generic advertising	NA		1.0	50,000	8.6	—
Domestic branded advertising	NA			Not allowed 0		
Foreign branded advertising	NA			Not allowed 0		
						—
Nutrition education				30,000		—
Nutrition research			4.6[17]	0	3.9[4]	—
New product development				0		—
Public relations			4.0[18]	735,000	9.6[6]	221,896
Program evaluation				150,000	.046[19]	—
Contributions to State R&P programs			8.3[20]	Not allowed 0	24.0[21]	
Contributions to trade associations			—	5,000[22]	—	—
Oversight	138,800		.250	130,000	.320[23]	105,113[24]
Administration	405,650		.287	1,730,000	1.2	150,201
Other	60,050[25]		.376[26] .241[28] .1[23]	235,000	.300[27]	156,532
Total	604,500		39.0	6,300,000	24.0	908,742

[1]Budgeted amounts for period of Dec. 93-Dec. 96.
[2]Program is not expected to be fully implemented until January 1995. The Lime Board will recommend a budget at such time.
[3]FY 94 domestic promotion and advertising budget. Includes TV, radio, and newsprint advertisement and promotion.
[4]Total research budget for FY 94.
[5]Product research includes new products and improvement of current products.
[6]Includes consumer information, industry information, and producer communications.
[7]AMS not reimbursed for oversight costs.
[8]Program development.
[9]Includes foodservice promotion, consumer education, State and regional support, industry relations, materials distribution, and USDA Office of the General Counsel (OGC) charges.
[10]Financial services.
[11]Includes $1,061,472 as a reserve.
[12]Foreign travel.
[13]U.S. Custom Service — collection of import assessments.
[14]Meeting expenses.
[15]Budget applicable to a 17-month period from August 1,1993, to December 31,1994. Of the $1,415,000 in anticipated revenue, the Mushroom Council expects to spend $604,500 for administrative expenses (including USDA and U.S. Customs Service implementation repayments, and AMS, OGC, and U.S. Customs Service user fees) and $810,500 on promotion, research, and consumer information and industry projects. Such projects are approved on a project-by-project basis.
[16]Pecan program terminated 3-15-94.
[17]CY 93 research budget.
[18]Includes communications and consumer information.
[19]2 percent deducted from each program area.
[20]Distribution of check off funds to State pork producer associations.
[21]State's share of collections under Federal law retained at State level and not part of National Board's budget.
[22]Supports only marketing activities. No funds may be used for lobbying.
[23]AMS oversight costs — includes FAS oversight costs.
[24]Includes $11,200 for start up cost.
[25]Includes USDA and U.S. Customs Service implementation repayments and OGC and U.S. Customs Service user fees.
[26]Resource management.
[27]Reserve.
[28]Policy development.

Appendix table 6—Federal checkoff and marketing order commodities promoted under FAS market development programs, 1989-93[1]

Item	1989	1990	1991	1992	1993
			Thousand dollars		
Organizations promoting Federal checkoff commodities:[2]					
Mohair Council of America (mohair)	18	18	20	20	131
National Dairy Board (dairy products)	0	0	171	368	656
U.S. Meat Export Federation (beef and pork)	8,390	8,255	22,415	11,680	13,070
USA Poultry and Egg Export Council (eggs)	7,922	4,663	8,744	7,952	8,925
American Horticultural Council (floral products)	120	151	425	800	245
American Soybean Association (soybeans)	15,968	19,975	17,820	15,262	11,467
Cotton Council International (cotton)	12,654	15,575	18,662	16,974	16,672
National Honey Board (honey)	113	472	717	254	257
National Potato Promotion Board (potatoes)	3,386	4,378	5,641	4,304	3,186
American Sheep Industry Association (wool)	167	161	383	424	357
Organizations promoting Federal marketing order commodities:					
California Almond Board (almonds)[3]	5,402	5,566	6,739	4,506	4,922
California Prune Board (prunes)	5,691	6,417	7,604	6,466	5,831
California Raisin Advisory Board (raisins)	11,118	10,738	10,257	6,884	6,938
California Table Grape Commission	1,447	2,018	3,277	2,569	2,990
California Tree Fruit Agreement	225	506	902	1,024	953
CA/AZ citrus Export Incentive Program[4]	10,513	12,404	8,149	7,899	7,794
Florida Department of Citrus (Florida citrus)	9,114	5,099	12,523	8,016	7,408
Northwest Cherry Growers (sweet cherries)	765	942	983	1,090	686
Oregon/Washington/California pears	541	803	1,725	2,630	2,100
Cranberry Export Incentive Program	102	102	288	502	600
Texas Produce Association (grapefruits)	0	30	0	0	0
California Walnut Commission (walnuts)	7,393	8,544	8,189	6,425	5,080

[1]Includes expenditures for the Foreign Market Development,Targeted Export Assistance, and Market Promotion Programs.
[2]Many export promotion organizations promote a variety of commodities. Federal expenditures are not available for specific commodities.
[3]Many Federal marketing order commodities are promoted through agricultural cooperatives and other companies. Almonds are promoted primarily through cooperatives and other firms.
[4]Export Incentive Programs are agreements between USDA, FAS, and specific firms to promote almonds, California and Arizona citrus and other specific commodities.

Source: Derived from data provided by USDA, FAS, Planning and Evaluation Staff.

Appendix table 7—Econometric studies of the effectiveness of nonprice export market promotions

Agricultural products	Authors	Markets studied	Time period	Type of model	Results	Comments
Citrus and products: Orange juice	Lee	Western Europe	1972/73-75/76	Single equation	Export revenue increases of $1.33 per $1 of promotion from all sources	Dummy variable tecnique across countries and time expenditures
Orange juice	Lee, Myers, and Forsee	Western Europe	1972/73-76/77	Single equation	Export revenue increases of $4.85 per $1 of promotion expenditures from all sources	Update of 1977 analysis with addition of Brazilian FCOJ price and exports on a per capita basis
Orange juice	Lee and Brown	Western Europe	1973/74-81/82	Error components analysis	Export returns per $1 invested	Range of $2.40-$7.81 Average of $5.51
Fresh grapefruit	Lee, Behr, Brown, and Fairchild	Western Europe and Pacific Rim countries	1976-87	Single equation	Export revenue increases of $3 per $1 of promotion expenditures	
Apples, poultry, tobacco	Rosson, Hammug, and Jones	World	1974-81	Single equation	Returns per $1 of investment: $60 for apples $31 for tobacco Insignificant result for poultry	Dummy variables used for regions
Avacados, grapes, cherries, wine, grapefruit, grapefruit juice, peanut butter, salmon, walnuts	Dwyer and Flowers	Japan	1970-88	Single equation	TEA's share of 1987 and 1988 export increases: Avocados—70% Cherries—70% Fresh grapes—58% Grapefruit juice—70% Fresh grapefruit—54% Walnuts—45% Wine—69%	Dummy variables used for TEA expenditures: Insignificant coefficients for TEA variables for avocados, salmon, peanut butter
Fresh grapefruit	Fuller, Bello, and Capps	Japan, France, Netherlands	1969-88	Single equation	Returns per $1 of investment: $5.02 for Japan $4.13 for France $6.65 for the Netherlands	
Cotton	Solomon and Kinnucan	Japan, South Korea, Taiwan, Hong Kong, Philippines, Thailand	1965-85	Armington market share	Increase in market share attributable to promotion: Japan—8.2% South Korea—1.6% Hong Kong—5.0% Philippines—2.6% Marginal returns to promotion: Japan—$32 South Korea—$13 Hong Kong—$171 Philippines—$11	Promotion variables for Taiwan and Thailand were insignificant
Red meat (beef, pork, beef offal)	DeBrito and Henneberry	Japan	1973-88	Armington market share	Returns of $8.64 per $1 of FAS expenditure	Promotion variable was positive but insignificant for total red meats, but positive and significant for beef offal
Soybeans and soybean products	Williams	World	1970-80	96-equation world trade model	$62 of export revenue per $1 of total expenditures (FAS, ASA, and 3rd party cooperator investments)	
Wool (Australian)	Dewbre, Richardson, and Beare	United States	1974-85	Household consumption: Aggregate demand model	1% increase in promotion expenditures yield a 0.07% increase in household consumption: Aggregate effects of 1% increase in promotion expenditures: 1983-84—7.6% 1985-85—8.9% 1985-86—9.1%	

Sources: Ackerman and Henneberry.

U.S. Department of Agriculture
Economic Research Service

SUMMARY OF REPORT #AER-715

The 1995 Farm Bill

Planting Flexibility Seen as Key Issue in Oilseeds Debate

May 1995

Contact: Mark Ash, (202) 219-0838

The 1990's will be remembered as a period of market opening for U.S. oilseeds. That is one important element in the current policy climate as policymakers take a look at all commodity programs. The oilseed situation is detailed in ***Oilseeds: Background for 1995 Farm Legislation***, a new report from USDA's Economic Research Service.

Since the 1980's, the U.S. oilseed industry has been much influenced by government programs and foreign trade policies directed toward other commodities. Acreage-idling policies restrict the ability to plant nonprogram crops such as oilseeds. The Conservation Reserve Program (CRP) has removed millions of acres from production.

In the 1970's, the European Union (EU) began heavily subsidizing oilseed production and vegetable oil exports, restricting major markets for the United States. Competition from South American soybean growers and Asian palm oil producers also increased. A strong dollar further complicated U.S. trade competitiveness in the 1980's. Soybean acreage plunged throughout the southern United States.

The 1990 Farm Act gave U.S. oilseed producers the incentive to plant the crop with the best market return on a portion of their base acres. However, gains in production and export share have been modest. In 1992, U.S. and EU negotiators finally agreed to settle the U.S. trade complaint against the EU's oilseed policy, which had unfairly discouraged soybean imports.

This accord cleared a hurdle for a wider agreement in 1994 for the Uruguay Round reforms of the General Agreement on Tariffs and Trade (GATT). The new GATT agreement will lower import barriers and encourage demand worldwide. The North American Free Trade Agreement (NAFTA) was implemented in 1994, reinforcing Mexico's status as a major U.S. trading partner in oilseeds and products.

One of the most important U.S. farm policy questions affecting oilseeds in 1995 relates to planting flexibility on farmers' program crop acreage bases.

Other questions facing policymakers include:

Can government program payments be scaled back without slashing farm incomes? How can farmers be protected from catastrophic price and yield risks without adding to the Federal budget deficit? Can policy be reoriented from support for farm commodities to conservation of resources and environmental protection?

This year's policy issues that will affect domestic oilseeds include: setting oilseed marketing loans and loan rates, determining target prices and payment acres for prgram crops, extension of acreage-idling policies, continued funding for the CRP and other land-use programs, resumption of the Export Enhancement Program (EEP) for vegetable oils, export credits, promotion of industrial uses of vegetable oils, agricultural research priorities, soybean quality, and revenue assurance.

To Order This Report...

The information presented here is excerpted from ***Oilseeds: Background for 1995 Farm Legislation,*** AER-715, by Mark Ash, George Douvelis, Jaime Castaneda, and Nancy Morgan. The cost is $9.00.

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