Commodity checkoff programs: A self-help marketing tool for the nation's farmers?

by Olan D. Forker and Ronald W. Ward

Almost $1 billion are spent annually on advertising and research efforts to expand or at least maintain the demand for U.S. commodities. These efforts are most often funded through direct producer assessment. Do these funds really provide commodity groups a self-help marketing tool to improve the market environment? Or do the assessments represent an unjust tax and a waste of farmers' monies?

Olan D. Forker is a professor in the Department of Agricultural Economics at Cornell University and Ronald W. Ward is professor in the Department of Food and Resource Economics at the University of Florida.

The answer is not obvious by a casual observance of market prices or sales. So many factors influence the price of a commodity at the farmgate that the impact of a generic advertising and promotion program is not easy to measure. For example, while research shows that advertising beef in 1991 strengthened demand, an increase in supply caused a decrease in price that more than offset advertising's positive impact. Producers could easily, but incorrectly, conclude from observing year-to-year price changes that the advertising effort was useless.

A similar problem exists in evaluating the benefits of all commodity promotion programs. Since many economic and demographic forces influence the commodity price and sales volume, an evaluation effort must estimate the strength of the market demand with and without advertising, while accounting for other economic forces. If the checkoff programs support demand enough relative to what demand would have been without the checkoff efforts, then farmers benefit as a group. Positive gains to producers imply that consumers placed a positive economic value on the information conveyed through generic advertising.

Commodity checkoff programs are, for the most part, funded through a mandatory assessment on producers of the specific commodity. Congress provides the legislative authority for each commodity group to establish a checkoff plan. Producers must vote whether or not to support such programs through an immediate or delayed referenda. The programs are maintained only if the affected producers vote to support the generic programs. Federal authorizing legislation now exists for checkoff programs in dairy, beef, pork, cotton, potatoes, soybeans, eggs, honey, limes, pecans, watermelons, and fresh mushrooms. Several others are pending or are in various stages of development. In addition to the federal authorization, many states have provided

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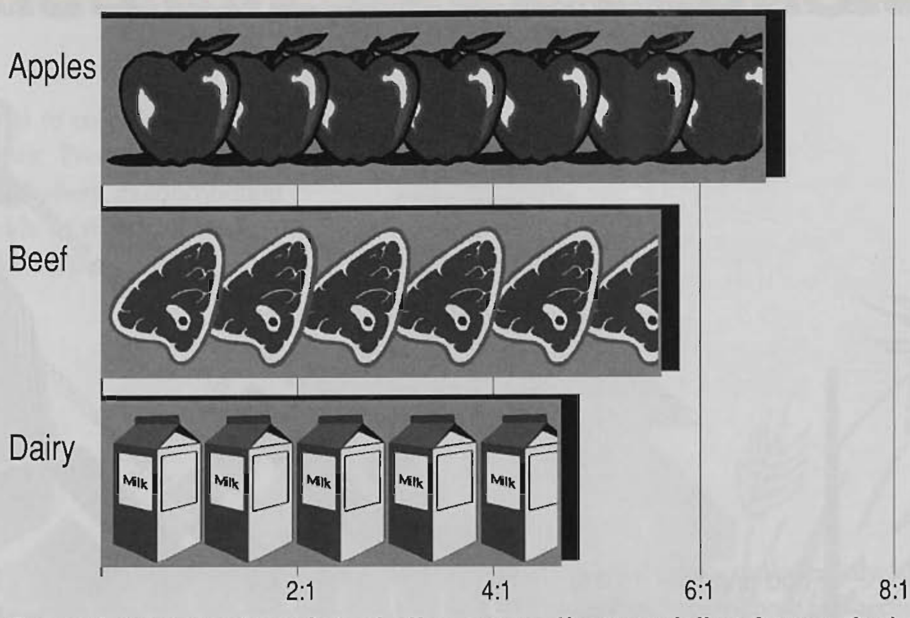
enabling legislation to commodity groups within the state to implement checkoff programs. The Florida Citrus Commission is the best known example. We know of at least 52 agricultural commodities with federal or state checkoff programs with over 120 national, regional or state promotion boards. See Forker and Ward (1993) for a complete list of these programs.

In a practical sense, consumers make decisions to buy food, fibers, and other goods relying on experience and market information. Commodity checkoff efforts are designed to provide specific information about the goods and, through quality improvements and packaging, to make sure the consumption is a positive experience. Generic advertising informs and reminds consumers about the characteristics of the commodity thus allowing commodity groups to focus on the unique attributes of their products. If consumers, in the exercise of their sovereign right, decide to increase their purchases of the product category (or at least not forego the purchase) in association with the advertisement, the information is of value to them. If the net increase generates enough additional revenue to the commodity group to more than cover the assessment, then the checkoff has economic justification for the producers who are paying the checkoff assessments.

Commodity advertising has the potential to increase demand through consumers' willingness to buy more at a particular price or pay more for a given supply. A key issue is whether or not advertising influences demand. Advertising may increase the demand or, at least, reduce the decline in demand that would have occurred without the generic advertising. Over some range of low advertising expenditures, there may be a minimal response to the advertising. With larger efforts, there may be a substantial



Rates of return to selected checkoff programs. ($ return: dollar of promotion)

increase in the response. However, consumers can eventually become saturated with information as well as with the product advertised. Likewise, consumers may be exposed to the advertising but consumption is delayed or extended over several periods.

Checkoff evaluation studies

A number of economic studies have shown the effects of generic advertising for specific commodity programs. In general, the advertising increases revenues and the magnitude varies by program, commodity, market, and over time. Response rates differ by media and the carryover effect ranges up to 12 months, again depending on the commodity.

Studies of apples, beef, and dairy provide examples of consumer response to advertising. A study of the Washington Apple Commissions' program indicates a level of $200,000 per month for television advertising is needed to achieve an initial meaningful response. The threshold level for radio advertising is smaller. Also, for example, radio expenditures of $400 thouseand per month increased demand by about 7 percent. This study shows that for the larger expenditure levels, a media combination of 70 *percent* television and 30 *percent* radio is near optimal.

In contrast to apples, analysis for the beef checkoff shows a fairly quick response to the initial expenditures and then a rapid leveling off of the gains. This knowledge of the response at the larger expenditure levels provides the basis for determining optimal (or maximum) expenditure policies (Ward 1993).

For dairy, a 10 percent increase in the U.S. cheese program would increase processed sales by 31.2 million pounds. A 10 percent decrease would cut sales by 33.3 million pounds. A 5 percent increase in fluid milk advertising would boost sales by 374.4 million pounds, while a 5 percent decrease in advertising dollars would reduce sales by 387.8 million pounds.

Rate of return estimates

Most, but not all, studies indicate positive rates of return to the checkoff programs. The rate of return is usually calculated as the net dollar gains divided by the total checkoff assessments. During the four crop years 1988-1991, Washington apple producers realized a 12.9

percent higher price than they would have received without their generic advertising program. This represents a $133.76 million return on $17.5 million investment or an average $6.63 return on each dollar of the assessment invested in media advertising.

An analysis of the national dairy promotion program indicates that dairy farmers, during the years 1984 through 1990, realized a farm level return rate of 4.6 to 1 on their investment in generic advertising. Dairy farmers received about 46 cents more than they would have received if they had not contributed the 15 cent mandatory checkoff assessment. In contrast, beef producers are assessed $1.00 for every bovine animal that is sold. During twelve months of 1990-91, live weight cattle prices were estimated to be approximately $2.00 per hundredweight higher than they would have been without the checkoff program. The programs generated $5.80 for each advertising dollar invested.

These estimates are based on research. The research has not been completed for many commodities and one must not extrapolate these positive examples to all other commodities.

Relative importance of advertising

Commodity advertising is designed to provide a direct means for producers to influence the demand for their products. One must not, however, conclude that the observed positive gains answer all farm price problems. Clearly, agricultural prices are highly volatile, primarily because of the volatility in production from year to year. Advertising cannot be expected to overcome all downward pressure on price caused by supply increases. As an example, Ward's beef studies show that while the beef checkoff has been successful, the checkoff accounts for only 5 percent of the total changes in beef prices from 1987-92. While we do not have comparable percentages for other commodities, we expect that the range shown for beef is probably representative.

Importance of carryover measurements

Study after study indicates generic advertising has a carryover effect, but the extent can be different for each commodity. The full effect of cheese advertising, according to a USDA study, is realized within three months, while only about two-thirds of the effect of the program on processed cheese is realized within 12 months. For fluid milk advertising the carryover continues for about 12 months according to a USDA study. Other studies of the fluid milk advertising program indicate carryover effects of about 6 months. The beef advertising analysis indicates a one quarter lag before any significant response is realized.

Given the diversity of the programs, seasonality in the ad campaigns, and the inherit differences and importance of the commodities, differences in the response rates and carryover effects should be expected.

Conclusions

The $1 billion that is now collected from farmers through government-legislated commodity checkoff programs is an important collective action marketing tool. Some threshold level exists before advertising expenditures generate significant sales revenue gains. Similarly, the benefits are minimal beyond some advertising level. The nature of the response to advertising depends on the amount of advertising expenditure, the characteristics of the product when purchased by consumers, the type of advertising program, and the extent of carryover.

We have concentrated on measured gains through shifts in demand. Social issues extend beyond those benefits. For example, what are the nutritional benefits from promotion information? Have the checkoff programs lead to improved product quality? Does generic advertising contribute to truth in advertising from brand advertisers? Are we now consuming more of one product at the cost to others?

Consumers must have information. Commodity checkoff programs provide one source of information that is generally factual and directed to educate and influence the consumer. For those cases adequately studied, the results show that the programs have been a beneficial self-help marketing tool. C

■ For more information

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