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ALSO IN THIS ISSUE

Going Nuts for More Bees: Factors Influencing California Almond Pollination Fees Brittney K. Goodrich and Jennie L. Durant	5
COVID-19 and Urban Water Consumption Mehdi Nemati	9

Modifying Marketing Orders to Face New Challenges

Rachael E. Goodhue and Harry M. Kaiser

Growers' strategies to enhance the economic sustainability of their farms are constantly evolving to address changing markets and production conditions. State or federal marketing orders enable farmers, farmer-organizations, and, in some cases, handlers to act collectively to further their mutual economic interests without violating anti-trust law. In order for marketing orders to be relevant with changing agricultural conditions, they must periodically have modifications made to their rules and regulations. Changing the scope of a marketing order's regulations involves undertaking a thorough rule-making process, which generally takes significant lead time before approval and implementation of changes. In this article, we examine recent efforts by the California Walnut Board to update its order in three key dimensions.

A marketing order is formed when a majority (usually two-thirds) of growers accounting for a majority of production vote in favor of it, although specific rules vary. Once formed, participation is mandatory for all producers and first handlers of the given crop in the relevant geographic area. (A first handler takes the commodity from the farmgate and introduces it into the marketing chain.) A per-unit assessment on sales funds the marketing order's activities. Federal marketing orders can engage in activities in the following categories: promotion and advertising, research and development, quality regulation, pack and container requirements, marketing information, quantity regulation, and import regulation. They cannot use funds for political lobbying.

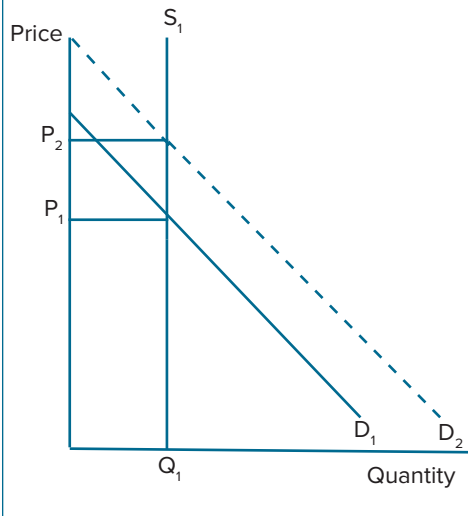
While activities in all of these categories can be included in a marketing order, the specific activities permitted for a specific marketing order are defined in federal or state regulation when it is formed. Changing these activities requires completing a federal rule-making process. One federal marketing order,

the California Walnut Board (CWB), has recently initiated processes for three changes in its activities, each within a different category. We examine these proposed changes and distill lessons for other orders that may consider updating their regulations.

The CWB is proposing to implement a "credit-back" program within the portion of its order dealing with advertising and promotion. It requires review through a formal rule-making process and a grower referendum. The other two proposed changes require review through a relatively streamlined informal rule-making process. One proposes suspending an existing volume control authority, which has not been exercised in decades (quantity regulation). The other proposes expanding the information collected from handlers (marketing information).

The proposed credit-back program is intended to incentivize handlers to engage in advertising and promotion activities by refunding them a portion of the money they spend, which effectively lowers the marginal cost of

Figure 1. Effect of Advertising on Price when Supply is Constant



these activities. If handlers perceive a marginal benefit to additional expenditures and set marginal benefit equal to the marginal cost as predicted by economic theory, then they will increase spending. The program would refund handlers up to 70% of their spending on eligible advertising and promotion expenditures, subject to a handler-specific maximum.

The maximum amount available to a handler is the same share of the credit-back program budget as its share of total walnut acquisitions in the previous year. Thus, a handler who had 10% of total acquisitions would be eligible to be reimbursed for eligible expenditures totaling up to 10% of the total funds budgeted for the credit-back program. If the program budget were \$1 million, the handler would be eligible for \$100,000 in reimbursement. At the proposed maximum 70% reimbursement rate, the handler would need to spend \$142,857 in eligible expenditures to receive the entire reimbursement.

The proposed credit-back program would require handlers to include 'California Walnuts' on the primary face label and include the handler's name or brand on the package. This requirement could aid in differentiating California walnuts

from walnuts produced elsewhere, potentially leading to higher prices for California producers. Handlers participating in the credit-back program will have a decrease in net assessment costs because a portion of their marketing expenses will be credited back. Costs will be unchanged for handlers who do not participate. Handlers can choose whether to participate, and will only do so if they perceive a positive net benefit from the program.

The credit-back program intends to expand total advertising and promotion expenditures for California walnuts, thereby enhancing demand and market price. Its effectiveness will depend on the extent to which handlers increase their expenditures beyond those they already make.

Advertising and Promotion: Credit-back Program

Advertising is predicted by economic theory to increase demand for the advertised product by "shifting" it outward, increasing the price for any quantity sold, and increasing the quantity sold at any given price. Empirical analyses of commodity advertising and promotion for specific marketing order programs, including many in California, have found these programs to be highly effective in expanding demand. If the credit-back program prompts an increase in total advertising and other demand-enhancing expenditures, including those by handlers and by the Board, economic theory predicts that gross revenues accruing jointly to growers and handlers will increase.

There are multiple ways in which additional advertising and promotion expenditures could increase demand. First, current walnut consumers could purchase more walnuts. Second, new consumers could choose to purchase walnuts. Finally, handlers could create or expand additional sales channels

due to the development and sale of value-added products, potentially increasing net returns above those obtained by commodity sales.

Figure 1 illustrates the effects of an increase in demand on price when supply (S_1) is fixed at quantity Q_1 . The fixed supply approximates the situation within a single marketing year when the crop has limited or no storability across years. Demand curve D_1 represents the quantity buyers will purchase as a function of price, where Q_1 is sold at the price P_1 . D_2 represents an increase in the demand curve due to advertising, which increases the price for Q_1 to P_2 . Thus, an increase in demand due to increased total advertising and promotion expenditures from a credit-back program would increase the observed market price when the quantity supplied is fixed.

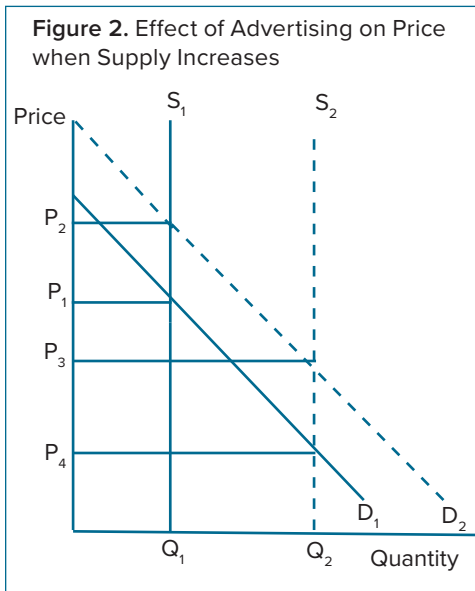
Figure 1 holds the supply curve constant. However, the production of most crops tends to increase over time due to technological innovations, and growers may respond to changes in the relative profitability of different crops by changing their acreage allocations. All else equal, an increase in supply, regardless of its nature, will reduce price. This behavior is represented in Figure 2 by the annual quantity harvested increasing year-on-year from Q_1 to Q_2 . As in the previous figure, the initial market price P_1 is where the initial demand curve D_1 intersects with the initial supply. The second demand curve D_2 again represents the effect of advertising on price. The new market price P_3 is at the intersection of the increased demand curve (D_2) and the increased supply curve (S_2). In this example, due to the increase in quantity, price declines to P_3 ; the negative effect of the increase in supply on price outweighed the positive effect of advertising.

Depending on the nature of the shifts in supply and demand, the observed price may decline, increase, or stay the same. However, the observed price will always be higher than the price would have been if demand did not increase. In other words, observing a price increase is not a requirement for demonstrating that advertising is effective.

Figure 2 illustrates this point. The price determined by the interaction of the initial demand curve and the second supply curve is lower than the price when advertising shifts out demand as well. All else equal, an increase in demand due to advertising and promotion would increase the market price. However, the substantial increase in production can more than offset any such effect, so that a net price decrease is observed. In that case, while the price is lower (P_3) than the initial price (P_1) due to the increase in supply, it would have been even lower (P_4) had there not been an advertising-induced demand increase.

Table 1 quantifies potential benefits of a credit-back program for the specific case of the California walnut industry. Earlier work by one of the authors estimated that each dollar invested in advertising and promotion of California walnuts generated \$19.75 in total revenue and \$15.67 in net returns on average. Assuming a \$0.04 assessment rate per hundredweight and total production of 625 million cwt., the CWB's total annual budget is approximately \$25 million. If the credit-back program budget is assigned 10% of assessments, then it would have \$2.5 million to allocate each year.

The success of the credit-back program will depend on the extent to which it increases total expenditures on advertising, promotion, and other demand-enhancing expenditures, including those by handlers and the CWB, all else equal. If handlers do



not increase their expenditures, then there will be no positive impact on price, although handlers' net returns would increase due to the partial reimbursement of their current costs.

At the other end of the spectrum, if all handlers requested their maximum amount of credit-back and used all of the funds to match new expenditures rather than substituting

for any existing ones, then they would invest an additional \$3.25 million in advertising and promotion: 70% of these expenditures would be credited back, totaling the \$2.5 million in the program budget. The remaining 30% would be a \$1.07 million increase in total advertising and promotion expenditures, paid by handlers. Multiplying the estimated returns per dollar by the additional expenditures by handlers, the program would generate roughly \$21.2 million in additional total revenues and roughly \$16.8 million in additional net returns.

Volume Control: Suspending the Reserve Authority

One of the CWB's authorized activities is the annual creation of a reserve based on market conditions that assigns "free" (eligible for sale domestically), export, and reserve percentages to production volumes. It has not exercised this authority in over thirty years, due to a strategic decision in the 1980s to focus on enhancing demand rather than regulating supply.

Table 1. Calculating the Impacts on Total Revenues and Net Returns of the Credit-back Program

	Calculation	Value
Total Production (cwt.)	(A)	625,000,000
Assessment Rate (\$/cwt.)	(B)	0.04
Total CWB Budget (\$)	(C=A*B)	25,000,000
Share of Budget Allocated to Credit-back Program (%)	(D)	10
Credit-back Program Budget (\$)	(E=C*D)	2,500,000
Credit-back Rate (%)	(F)	70
Total Advertising and Promotion Expenditures with Credit-back Program (\$)	G=E/F	3,571,429
Increase in Advertising and Promotion Expenditures (\$)	H=G-E	1,071,429
Increase in Total Revenues per Dollar of Advertising/Promotion (\$)	(I)	19.75
Increase in Net Returns per Dollar of Advertising/Promotion (\$)	(J)	15.67
Increase in Total Revenues (\$)	(K=H*I)	21,160,714
Increase in Net Returns (\$)	(K=H*J)	16,789,286

Sources: Authors' calculations and Kaiser, 2018

The CWB is seeking to suspend this authority through the USDA's informal rule-making process. Suspending the authority would eliminate the need for a committee to evaluate the desirability of establishing a reserve when market conditions have made the concept of a reserve effectively obsolete.

Marketing Information: Expanding the Scope of Reporting

Currently, the CWB is authorized to collect information regarding walnut shipments from handlers. While assessment income is based on shipments, shipment data does not provide a complete picture of walnut volume availability. The CWB is currently seeking the authority to expand permitted reporting to include volumes that have purchase commitments but have not been shipped.

This proposed change enables the information collected by the CWB to better reflect the conditions of modern agricultural markets in which an increasing share of purchases are committed to prior to shipment. Knowing the volume that already has a purchase commitment in addition to knowing the volume that has been shipped will provide handlers with a more complete picture of market conditions when negotiating sales.

Modernizing Marketing Orders for Other Commodities

As markets continue to evolve, marketing orders will continue to adapt to meet market conditions. Adaptations will include modifying traditional functions—as the CWB is proposing for information collection—and introducing and expanding new ones. The California Rice Commission, for example, has increased its focus on environmental quality and regulatory compliance and reduced its direct marketing-related activities since it

was founded in 1999 as a replacement for earlier industry organizations. (It remains involved in marketing through its membership in the U.S. Rice Producers Association.) Increasing regulation of agriculture may make moving in the same direction more attractive for other marketing orders as well.

While production research has long been a traditional marketing order function, over time, funding health research has emerged as a priority for many commodities. As consumers' interest in designing a diet to meet their individual health needs continues to increase, health research is likely to continue to be a growth area for enhancing consumer demand for individual commodities. However, funding health research must be included as one of a marketing order's approved activities. If it is not, the marketing order must be amended to include it. These types of successful adaptations by marketing orders will enable them to continue to meet the original objective of enhancing the economic sustainability and stability of U.S. agriculture.

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The opinions expressed in this article are the authors' own and not those of the California Walnut Board or the United States Department of Agriculture.

For additional information, the authors recommend:

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