

Hass Avocado Promotions Key To Huge Lift In Consumption

By Charlotte Ambrozek, PhD Student; Tina L. Saitone, Cooperative Extension Specialist; and Richard J. Sexton, a Distinguished Professor in the Department of Agriculture and Resource Economics (ARE) at University of California, Davis

Commodity marketing boards that conduct generic promotions are generally required under their authorizing laws to have the effectiveness of their activities evaluated by independent third-party analysts. We recently evaluated the effectiveness of promotions conducted under the auspices of the Hass Avocado Board (HAB) for the five-year period 2013 – 17. The HAB and its member associations collectively spent over \$205 million promoting fresh Hass avocados in the U.S. over this time period.

The growth in the market for fresh avocados in the United States has been remarkable. During the decade of the 1990s, consumption was relatively flat, averaging 1.6 lbs. per capita. But since then, consumption has increased 350% to an average of over seven lbs. per capita today. By comparison, growth in per capita consumption of all fruits over the same period has been only 9%. Grower and importer prices for fresh avocados have fluctuated considerably during this period, reflecting supply volatility, but, on average, real (inflation-adjusted) prices have remained constant or increased slightly, reflecting the industry's ability to expand demand to at least keep pace with rapidly rising shipments of fresh avocados to the U.S. market.

Most of the growth in avocado shipments to the U.S. has come from Mexico, which began exporting fresh Hass avocados to the U.S. in 1997 under a trade liberalization agreement that ultimately opened the entire U.S. market to Mexican avocados in 2007. The growth in Mexico's share of the U.S. Hass avocado market continued during our 2013 – 17 review period, with Peru also emerging as an important player in the market. Averaged over the final three years of this review period, Mexico's share of the U.S. market for fresh Hass avocados expanded to 79.0%, with California accounting for 12.6% of sales, followed by Peru with 4.8% and Chile with 2.4%.

The opening of the U.S. market to Mexican Hass avocado imports led avocado industry leaders to forecast that supplies of fresh Hass

avocados to the U.S. market would expand rapidly across all seasons. To avoid plummeting prices, they understood that demand would have to expand to keep pace with the anticipated supply growth.

A key strategy in this regard was obtaining passage in 2000 of the Hass Avocado Promotion, Research, and Information Act. This Act enabled the creation of the Hass Avocado Promotion, Research and Information Order that was approved overwhelmingly in a referendum of producers and importers in July 2002. Since 2003, the Hass Avocado Board, which was created to administer the order, has implemented a mandatory assessment of 2.5 cents per pound on all fresh Hass avocados, domestic and imports, sold in the U.S.

The HAB uses 15% of the assessment revenues to fund activities, such as nutrition research, marketing, and information programs intended to benefit all avocado producers and importers. The remaining 85% of assessment revenues is rebated to its member associations in proportion to their contributions to the HAB.

Our work involved analysis of retail sales of fresh Hass avocados based on grocery scanner data for 2013 – 17 collected by Information Resources, Inc. (IRI) and provided to us by the HAB. The data represent an aggregation of fresh Hass avocado sales across retail outlets that include grocery, mass merchandisers, club stores, drugstores, dollar outlets and military commissaries.

The goal of our analysis was to evaluate the impact of total Hass avocado promotion expenditures on sales of Hass avocados, while controlling for other factors that might also impact sales. We constructed a statistical model to explain fresh avocado sales per month in the U.S. as a function of total promotion expenditures during the month, price (specified as the average monthly importer price), and additional variables to account for seasonality in avocado demand and for time trends over the five-year review period.

We found that the impact of price on sales

was negative and statistically significant, but that sales are relatively unresponsive to price. Specifically, a 10% increase in price was estimated to reduce sales by only about 2%. Promotion expenditures had a strong positive and statistically significant impact on sales of Hass avocados, with an elasticity of sales with respect to promotion expenditures of 0.06. For example, a 10% increase in promotion expenditures would expand Hass avocado sales in the U.S. by about 0.6%.

Our next step was to construct a simulation model of the U.S. fresh Hass avocado market based upon the results of the statistical analysis. This model includes supply-and-demand functions for fresh avocados in the U.S. market and simulates a small expansion of the HAB's promotion program to assess impacts on grower/importer costs and on demand. Equilibrium sales and grower/importer price before and after this hypothetical program expansion were derived and compared to measure grower/importer costs and benefits from the promotion program.

Depending on model specification, we estimated benefit-cost ratios ranging from 1.64 to 3.62. Any benefit-cost ratio greater than 1.0 indicates a successful program. Thus, our results represent strong evidence that the promotion programs conducted under the auspices of the HAB were successful during the 2013 – 17 review period in increasing profits to California producers and importers of Hass avocados.

In terms of the rapid increase achieved in per capita consumption, while maintaining or increasing real prices to producers and importers, the Hass avocado success story in the U.S. has made avocados the envy of the produce industry. Our analysis demonstrates that the HAB and its member associations have played a fundamental role in this success. **pb**

UC DAVIS
UNIVERSITY OF CALIFORNIA

UC Davis is one of the world's leading cross-disciplinary research and teaching institutions, located in Davis, California.

**HASS
AVOCADO
BOARD**

The Hass Avocado Board is the only avocado organization that equips the entire global industry for success by collecting, focusing and distributing investments to maintain and expand demand for avocados in the United States.

Examine Ways To Make Produce More Profitable

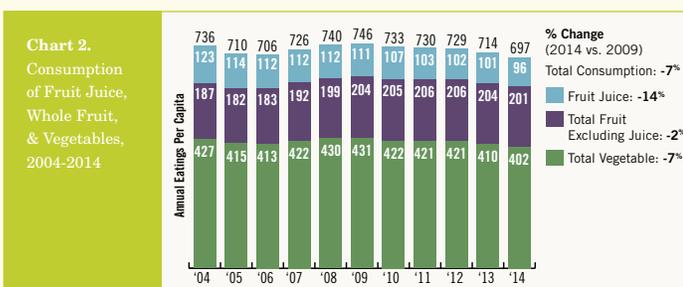
By **Jim Prevor, Editor-in-chief, PRODUCE BUSINESS**

Avocados have been one of the grand success stories of the produce industry. The reasons for this are many:

- Immigration changes have grown the percentage of the population that is Mexican or from a culture where avocado use is substantial.
- Legal changes allowed the unrestricted import of avocados from Mexico — a plentiful source of supply not burdened by excessive transportation or tariff costs.
- Cultural changes in America made the population more open to foreign cuisines, such as Mexican foods.
- Supermarkets have grown larger and thus better able to give space to growing items, such as avocados.
- Plus, as this UC Davis piece explains, an enlightened marketing apparatus has been provided with funds sufficient to make a difference.

So those who had an interest in seeing Hass avocado sales increase owe a great debt of gratitude to the Hass Avocado Board (HAB) and the various member associations that, collectively, spent \$205 million dollars promoting fresh Hass avocades between 2013 and 2017. These groups continue to support the industry today.

Unfortunately, the evidence suggests that most increases in produce consumption — whether avocados or kale or blueberries — are accomplished with a reduction in consumption of other produce items. The Produce for Better Health Foundation did its own report tracking ten years of consumption ending in 2014. Take a look at the numbers below:



In other words, though we can see significant increases in the consumption of individual produce items, we cannot say that we have much evidence that such consumption increases are additive. Typically, it is that an item becomes popular, and this item is substituted for other items on the menu. So kale becomes hot and it replaces Iceberg or Romaine lettuce as a salad base or spinach as a side dish.

Though we know meat substitutes exist — say cauliflower “steak” or the decision to use meat as a flavoring instead of the main item in things such as stir-fries — the evidence that any of this is leading to significant and sustained increases in consumption of fresh fruits and vegetables is weak indeed.

Now one possibility is that the weak marketing efforts of most produce items make them a kind of, to use a phrase, “low hanging fruit,” and so other aggressively marketed items push them out of the way. Is it possible that if all produce items were marketing themselves to the degree that Hass avocados are that, perhaps, these marketing efforts would push against proteins, starches and other foods and gain market share against non-produce items? We haven’t done this, so it is difficult to say.

Equally, if the funds the various produce commodities spend were pooled in some way — a kind of overall fruit and vegetable promotion board — would that make the industry more effective in gaining “share of stomach” for produce against other foods?

One other thought is whether the focus on Hass avocados, rather than a geographic-based promotion, isn’t effective in part because it corresponds to the way consumers eat. When ordering guacamole to be made table side in a Mexican restaurant, one doubts many consumers really know or care where the avocados come from. Indeed, even in cases where consumers want USA-grown produce, we haven’t seen much research indicating that would apply to Mexican food!

The avocado industry deserves a lot of credit. They have managed to bond together globally and build an enormously successful organization that has really aided sales and helped sustain profitable pricing. They did this at a time when massive increase in imports from Mexico, enabled by legal changes, could have easily crushed pricing.

The challenge for the broader produce industry, though, is to find in this valuable work an understanding that would enable increases in sales to come not from other produce items but by seeing produce used as replacements for protein and other foods.

The UC Davis research suggests that avocados and, most likely, produce in general, has a kind of “core constituency,” and even significant price increases will not lead to massive declines in item sales or consumption. This makes sense because most expenditures on produce are a small percentage of the overall consumer food budget. If one enjoys a cheeseburger with a slice of tomato, onion and a piece of lettuce, even a significant increase in prices for those produce items won’t lead to a significant increase in cost for the cheeseburger.

Yet to boost consumption, we need to make produce a higher percentage of the ingredient cost. So, a stir fry or salad with a few ounces of sliced protein makes the produce component a bigger cost than a side of spinach with a 16-ounce steak! So, if we succeed in making produce the heart of the meal, we may also make sales more vulnerable to produce cost increases.

pb