

November 2007

AMR 07-04



Agricultural Marketing Report

Colorado
State
University

Extension

Department of Agricultural and Resource Economics, Fort Collins, CO 80523-1172
<http://dare.colostate.edu/pubs>

EXPLORING THE INCREASED INTEREST IN FRESH PRODUCE: MAKING THE MOST OF THE CHANGING MARKETPLACE ¹

Jennifer Keeling-Bond, Jennifer Lloyd, Dawn Thilmany, and Craig Bond ²

In recent years, greater public concern for obesity, diet, and nutrition issues have led retailers and wholesalers to focus marketing and promotional messages on the health benefits of eating fresh fruits and vegetables. To support this marketing message, retailers have also increased the number of fresh produce offerings available in a typical grocery store from 173 to 350 between 1987 and 2000 (Progressive Grocer, 2002). Consumers have responded to retailers' efforts with a 15% volume increase in fresh produce consumption during the same time period. New products were introduced to meet escalating consumer demand, and as a result, the average produce department is larger (Dimitri, Tegene, and Kaufman, 2003). According to a Food Marketing Institute survey, 'high quality produce' is the second most important feature consumers rank in selection of a supermarket, preceded by a clean and tidy store (Food Marketing Institute, 2003). Yet, there have been few studies that explore the changes consumers are making in their fresh produce purchasing behavior.

Successful health-oriented marketing by large-volume retailers and wholesalers provides evidence that small and medium-sized producers can also capitalize on increased demand for fresh produce. To take advantage of this market trend, producers can benefit from access to information on consumer purchasing behavior and food preferences. A 2006 national consumer survey of

1549 individuals provides data on these and other aspects of fresh produce consumption for a wide cross-section of U.S. consumers during the twelve months preceding the survey. This fact sheet will explore responses to questions about grocery and fresh produce expenditures, perceived value of food purchases, and general grocery and fresh produce purchase habits and changes in the last 12 months.

Expenditure on Groceries and Fresh Produce

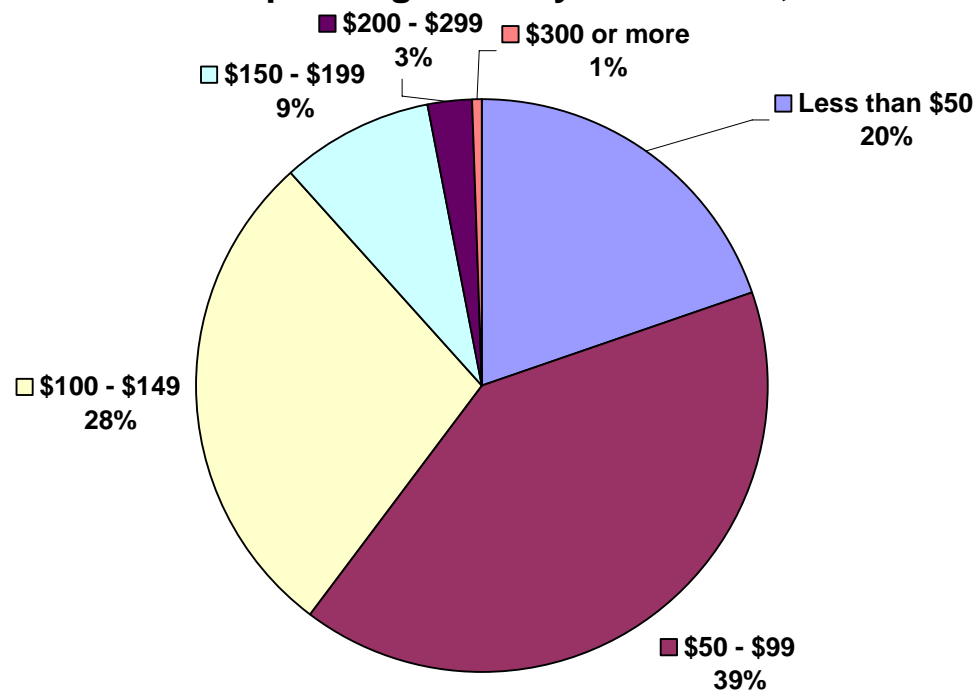
Beyond the 15% increase in fresh produce consumption noted between 1987 and 2000, a longer term perspective shows U.S. per capita consumption of fresh vegetables and melons grew steadily between 1979 and 2007 for a total gain of 54.6% (Lucier and Jerado, 2007). This increase in consumption occurred during a time that the same USDA study reported prices for a representative fresh vegetable selection increased 292% (or 190% when deflated to real dollars).

Although there is evidence that fresh produce purchases have increased, it is important to explore these changes in the context of all food purchases. Figure 1 summarizes the average weekly household grocery expenditures for all respondents in our survey. Analysis of this data indicates that a plurality of respondents (39%) spend between \$50 and \$99 per week (not controlling for household size). Summing over categories,

¹ The authors acknowledge support from the USDA-NRI small and mid-size farm research program

² The authors are Assistant Professor, Graduate Research Assistant, Professor, and Assistant Professor; Department of Agricultural and Research Economics; Colorado State University; Fort Collins, CO 80523-1172.
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**Figure 1: Weekly Expenditure on Groceries
Breakdown of Spending Level by Household, n=1549**



we find that 41% of households represented in our survey spend more than \$100 per week on food. The average household in our survey has two members indicating that many spend more than \$50 per person per week on groceries. Using average household size and grocery expenditures, we find that the median spending level is \$37.50, consistent with a 2006 ERS study that found median household expenditure on food per week was \$40 per person (Nord et al, 2006).

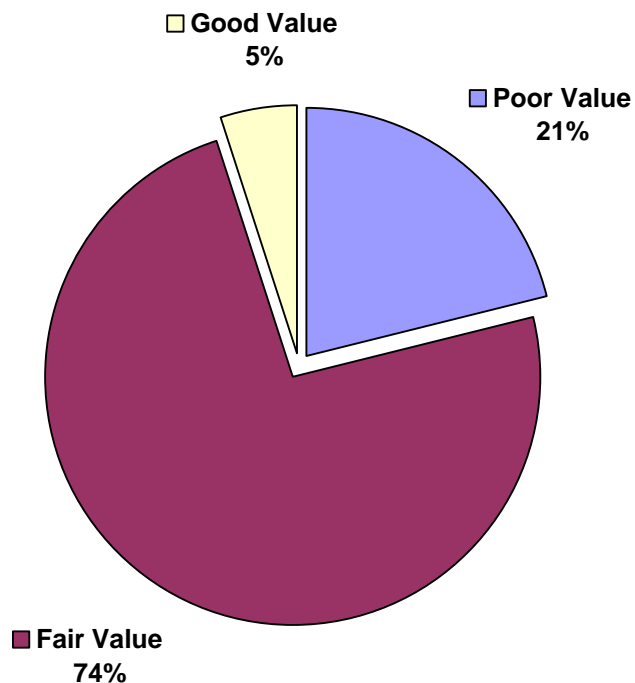
Despite increased popularity of fresh produce, expenditures represent a small dollar value relative to consumers' total food budget (Figure 2). In 2004, U.S. urban households allocated, on average, just 17.7% of their total food budget to fruit and vegetable purchases, of which, 11.3% was reserved for *fresh* produce purchases. Assuming a total food budget of \$40/per person per week, the average urban American in 2004 spent approximately \$4.52 per week on fresh produce (Blisard and Stewart, 2007). Based on our 2006 survey data, consumers are reserving a higher proportion of their total household budget for fresh produce purchases. Many (59%) of the households in our survey

spend an impressive amount on fresh produce, reporting over \$20/per week or an average of more than \$10/person per week. This is encouraging news for producers as growth in the fresh produce budget allocation over time is indicative of increased consumer willingness to purchase and pay a premium for fresh and value-added produce.

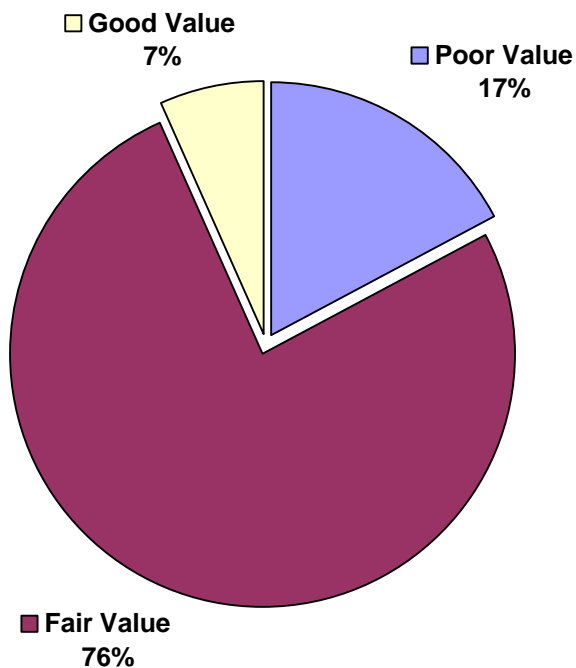
Perceived Value in Food and Produce Purchases

To determine whether dollars spent were equivalent to expectations of quality, respondents were asked to indicate whether their food and fresh produce purchases were "a good value for money." Figures 3 and 4 summarize consumers' responses. The majority felt that all food (74%) and fresh produce (76%) were a fair value for the money. Twenty-one percent believe that food is a poor value compared to just 17% of fresh produce purchases. These findings provide evidence that consumers generally feel greater satisfaction with fresh produce purchases relative to other foods. Furthermore, we can infer that produce is priced more appropriately for the quality of product received in comparison to food in general.

**Figure 3: Perceived Value for Food Dollar,
Share of Households who Responded, n=1549**



**Figure 4: Perceived Value for Produce Dollar
Share of Households who Responded, n=1549**



Those who believe their produce is good value for the money (7%) may represent an important segment for small and medium-sized producers who market their fresh produce via direct-to consumer channels. Through targeted marketing that emphasizes the quality and value of their produce, the farmers may be able draw additional consumers to farmers' markets, roadside stands and other venues. If the same consumers are found to be insensitive to price changes, a further opportunity exists to increase prices and total revenue, without adversely affecting demand. Proper identification of this segment of the population is important if price segmentation is to be employed. For example, consumers who believe produce to be a good value and are willing to pay a premium for value-added produce may be self-segregating by choice of purchase location, choosing to shop at boutique markets, high-end retailers or direct from producers. By partnering or selling through such channels, small and medium sized producers can target quality-seeking customers (Bond, Thilmany and Keeling-Bond).

Fresh Produce Purchase Frequency

Many small and medium-sized producers face seasonality and geographic constraints that limit their ability to provide fresh fruit and vegetables year-round and at locations that are most convenient for consumers. A better understanding of fresh produce purchasing preferences may inform marketing practices, especially as these producers increasingly utilize direct-to-consumer channels to satisfy consumer demand. Figure 5 shows that the majority of consumers (84%) reported that they purchase fresh produce 2-3 times per week. This finding suggests that making farmers' markets or other direct-market channels accessible to consumers at frequent intervals may encourage greater patronage. During the growing season, some urban areas such as Fort Collins, Colorado, have at least 3 weekly farmers' markets to serve local patrons. For consumers who are educated about market schedules, these venues may be able to seasonally satisfy the majority of fresh produce needs. On average, however, farmers' markets across the nation are open just 1.8 days per week with seasonal markets open less frequently (Payne, 2000).

Figure 5: Frequency of Fresh Produce Purchase

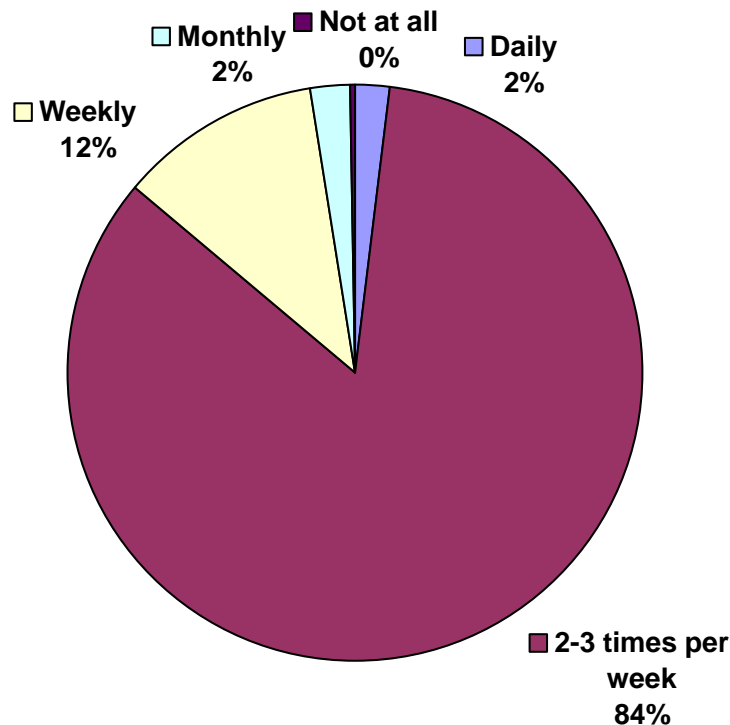


Figure 6 shows that buying frequency for those that buy direct from producer was much lower than for general purchases and that a full 39% of consumers do not prefer to purchase direct from producers at all. However, direct marketers can take heart that 69% of respondents reported a desire to purchase direct from producers at least once a month and one in ten would like to shop direct 2-3 times a week. Since the majority of consumers favor shopping for fresh produce 2-3 times per week, we can infer that approximately 10% of respondents would be interested in patronizing via direct-to-consumer channels nearly every other day. A 2006 study by Thilmany, Keeling Bond, and Bond found convenience to be a significant factor in motivating consumers to seek out direct-to-consumer markets. Taken together, the research suggests that locating in easy-to-find venues, maintaining a regular schedule, and opening at frequent intervals may serve to increase support for farmers' markets and road side stands.

Changes in Fresh Produce Purchase Behavior

In an effort to determine if consumers have responded to marketing campaigns that emphasize healthier eating habits, including increased consumption of fresh produce; respondents were asked to describe any changes in their purchase habits during the 12 months preceding the May 2006 survey. In light of the publicity that obesity, diet, and health issues have received,

it's not surprising to find that 30% of consumers (513 respondents) have changed their fresh produce purchase habits in the last year and that most of those who have changed their behavior (301 respondents) are purchasing more produce (Figure 7).

A rough breakdown of how the respondents made changes (Figure 7a.) reveals that 102 individuals altered the type of fresh produce they bought and/or the source of their produce purchases. Figure 8 provides a more in-depth look at the nature of fresh produce purchase changes. The most common modification was the type of produce purchased, indicating that consumers are possibly selecting more diverse produce varieties (ex. heirloom tomatoes vs. conventional) or switching to more healthful types (ex. iceberg lettuce vs. spinach or mesclun salad mixes). This finding reinforces the hypothesis that customers are seeking greater variety and that small and medium-sized producers may be able capitalize on market potential for new and interesting products. Between 1987 and 1997 fresh-cut produce and packaged salads rose from 1 percent to 15 percent of total produce department sales (Dimitri, Tegene, and Kaufman, 2003). These promising results, however, must be weighed alongside the fact that those consumers who have increased the variety of produce purchased represent just 4% of total respondents and a fairly small segment of the total sample population.

Figure 6: Frequency of Purchase of Fresh Produce Preference to buy Direct from Producers

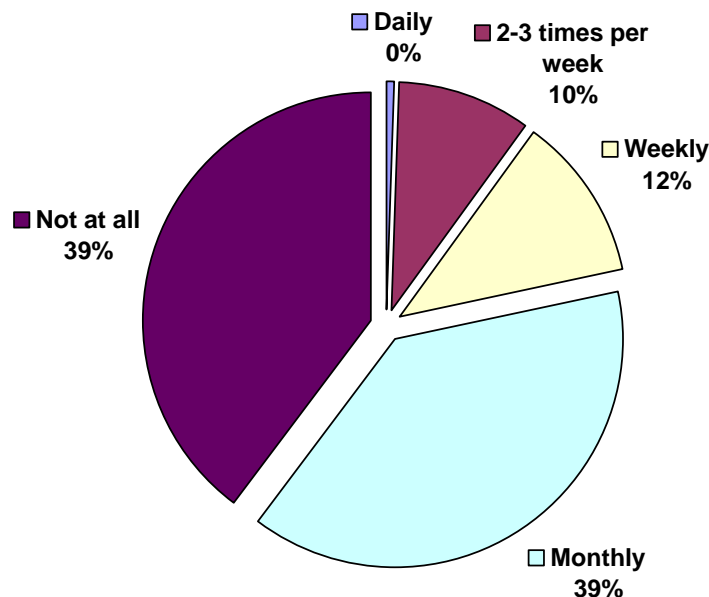


Figure 7: Change in Purchase of Fresh Produce
Share of Respondents with Changed Purchase Behavior, n=1549

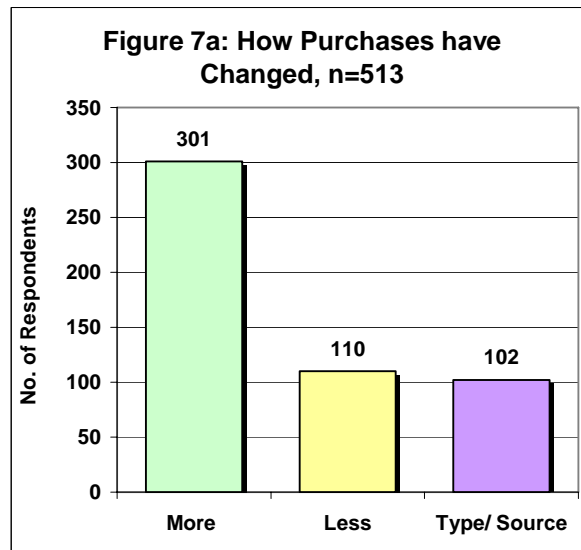
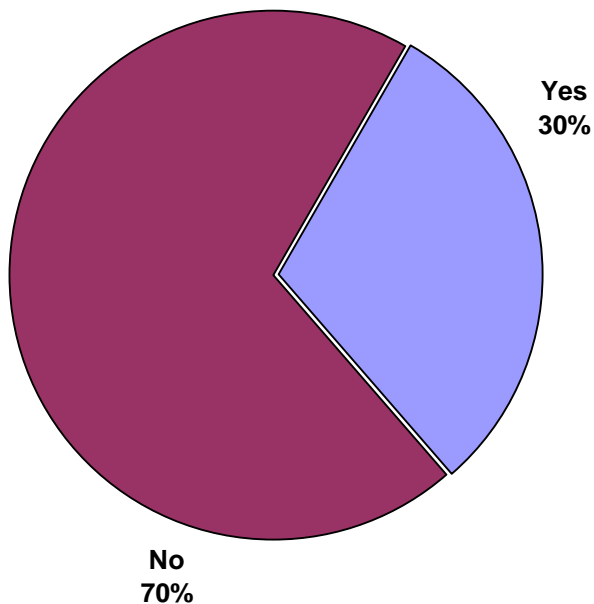
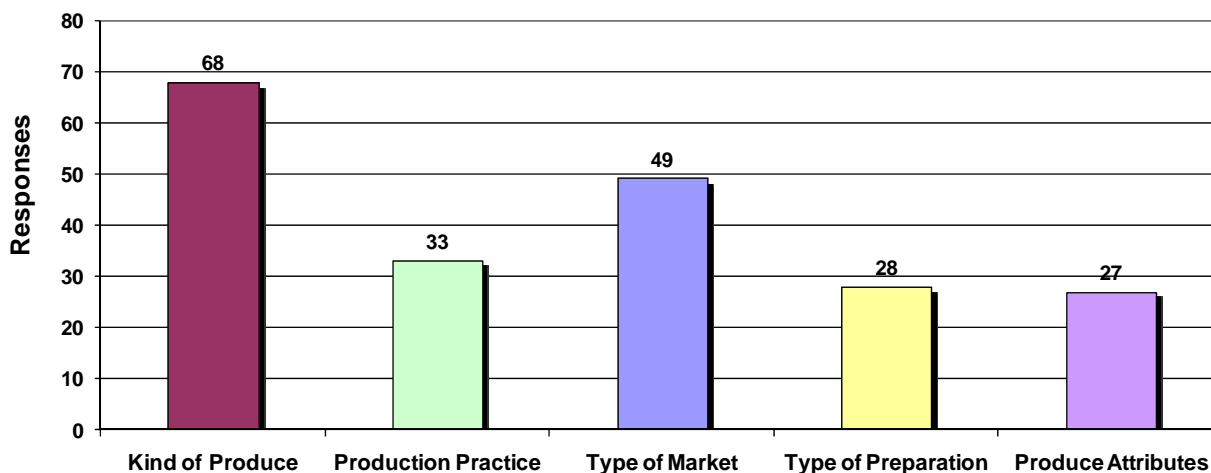


Figure 8: Changes in Fresh Produce Purchases

Number Reporting Changes in Type and Source, n=102 of 1549 Total Respondents



Respondents could give more than one change in type or source of fresh produce purchases, resulting in 205 responses from the 102 respondents.

Few respondents (33 individuals) noted that demand for different production practices (conventional to organic or pesticide-free) motivated a change in produce purchasing behavior. In light of increased availability of organic products at conventional grocery and wholesalers (ex. King Soopers and Sam's Club), it is notable to find that market choice was a more common source of change. Forty-nine individuals report having made a change in their fresh produce purchase location. According to a FMI survey, 18 percent of shoppers identified alternative retailers as their primary source of food purchases, indicating a shift away from supermarkets (Food Marketing Institute, 2003). In combination with additional survey data, we find that often the consumer is increasing the number of times they patronize a farmers' market, road side stand, or other direct-to-consumer marketing channel.

Demand for a particular type of preparation (ex. un-cut produce to prepared fruits and veggies) motivated a change in produce purchasing habits for just twenty-eight respondents. The widespread availability of prepared, pre-washed, peeled, and other processed fruits and veggies many years prior to our survey may account for the small change during the twelve months prior to May of 2006. Since many of these processed products command a premium over unprocessed alternatives, the slight change in demand may also represent a small income effect.

The last motivation examined is a change in demand for produce attributes which may include features such as variety, color, or other internal and external features (ex. seedless watermelons). Few respondents (27) indicate that these attributes were a factor in making purchasing behavior changes. As such, without further research, little evidence exists to support the notion that promoting the specific attributes of fresh produce varieties will result in significant increases in demand.

Results from our analysis of fresh produce purchase behavior indicate that during 2005, a significant segment of the population changed their buying habits. Of those that altered their behavior, a full 7% expressed that they had changed either the type or source of their produce purchases, implying that a small but notable segment of the population may be influenced by market messages to purchase potentially value-added produce at locations other than a traditional grocery or wholesale store. This encouraging news highlights the potential value of marketing and the need to seek out accurate and informative marketing research. When

research findings are applied to marketing practices, producers may be better able to target specific consumer groups and tailor their promotional materials and product offerings to the desires of their current and potential patrons.

Conclusions and Marketing Implications

Several academic and popular press sources have documented a nationwide increase in demand for fresh produce, greater promotion of healthful eating and obesity awareness, and rising popularity of direct to consumer market channels. Since 'high quality produce' is reported as the second highest ranking feature in selection of a supermarket (FMI), it is logical to assume it is at least as important for alternative and direct markets as well. Subsequently, we provide these results and implications as a way to inform all food marketers about current consumer trends and behaviors. In particular, such trends provide potential opportunities for small and medium sized fresh produce growers to increase marketing margins by supplying the products that consumers demand in locations where they prefer to shop.

This fact sheet provided summary information on consumer purchasing behavior, perception of food value, and motivations for fresh produce purchasing changes in the last 12 months. Based on these findings, several general recommendations for improved marketing are offered for fresh produce growers and farmers' market and roadside stand managers.

Specifically, we find the 20% of respondents have increased fresh produce purchases in the 12 months preceding the survey and that the majority of these individuals feel that produce is a "good value" for the money. Since a wide majority of consumers feel fresh produce is a good value, producers may be able to increase profits by charging premiums when they add assurances, product innovations, or services that signify value to buyers. For those directly marketing to consumers, this may be especially relevant as they develop consumer relationships and promote benefits of buying direct or local.

Our study also found that a significant number of consumers changed their fresh produce purchasing behaviors in the 12 months preceding the survey. Nearly one in five respondents (19.3%) is purchasing more produce and about 7% altered the type or source of produce they purchased. Anecdotal evidence suggests that consumers are selecting more diverse and often

more nutritional produce, possibly in response to the growing varieties offered for sale and to marketing messages that encourage healthier eating habits. Importantly, we can infer that consumers may not only be more accepting of new types of produce, but that offering these products has the potential to increase overall demand for the produce category. As such, producers may be able to stimulate sales among some consumer groups by offering a greater diversity of fresh produce.

In terms of preferred frequency of purchase, we find that the majority of consumers (84%) would like to buy fresh produce 2- 3 times per week. Previous research has shown that consumers' selection of purchase location is influenced by convenience, so all types of food retailers can seek to make ready-to-eat and serve fresh produce items readily available, and see this as an opportunity to drive consumers to their stores/markets. For direct marketers, holding farmers' markets or farm-based sales several times a week in easy to find locations may make it easier for consumers to satisfy more of their (at least seasonal) fresh produce needs through this direct market channel.

In closing, changes in consumer taste and preferences are driving significant growth and change in the fresh produce industry. Fresh produce sellers should consider the increased interest in buying fresh and frequently as an opportunity to stimulate demand for their products and entice customers to farmers' markets, road side stands, and other direct to consumer channels. Careful selection of sales location, market offerings, and marketing materials will further assist these producers to be successful. When making marketing decisions, especially when choosing to enter a market or establish a new type of produce sales enterprise, we strongly suggest that producers familiarize themselves with the local or regional preferences of their target market. This information may be gleaned from popular press, observation at existing groceries and direct market channels, as well as from extension publications.

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