# Preferences for Fresh Apples in El Salvador and Central America 

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Central America has seen a dramatic increase of more than $100 \%$ in apple importation over the last 5 years. According to Foreign Trade Statistics in 2005, Central America imported $\$ 14.9$ million in apples from the United States, while in 2009, this value grew substantially to $\$ 31.5$ million. In $2010,50 \%$ of the apples imported by Central America were from the United States, which supplies those countries with apples primarily from September to February. From March to September, most apples come from Chile. From the United States, the primary states which exported apples to these countries were Washington, Pennsylvania, California, Oregon, Michigan, Virginia,
and Maryland. Massachusetts is not a primary apple exporter to Central America and may therefore be missing out on a lucrative market. The main goal of this research was to determine Central American apple consumers' preferences in order to assess the best method of introducing apples from Massachusetts into the Central American market.

Several supermarket chains, wholesalers and local markets in El Salvador were visited and assessed as to apple sources, prices, varieties, presentation, and sizes. A survey was also conducted to obtain the primary information with a focus on end-users and distribution channels in El Salvador. Convenience sampling and a


Figure 1. Customer surveys of apple preferences in El Salvador. These results are based on surveys of 165 individuals.
non-probability method were used as an effort to reach a representative target population without prior classification of age, gender, or income level. This survey consisted of fourteen structured questions regarding gender, age range, family size, monthly family income, and the types of fresh apples purchased. It was conducted in a shopping mall in El Salvador during the summer of 2010, and a total of 165 respondents were surveyed.

Of the 165 respondents, $76 \%$ buy apples regularly, while $24 \%$ do not. Of those who do not buy apples regularly, $33 \%$ said that they buy apples only around the Christmas holidays, $21 \%$ said that they do not eat apples regularly, $15 \%$ said that they do not buy apples because of the high price in marketplaces, and $4 \%$ said that they cannot buy apples because of their low income. Of those who buy apples regularly, $35 \%$ of respondents prefer large apples, $34 \%$ prefer medium apples, and $32 \%$ prefer small apples. According to standard variety names, $55 \%$ buy Delicious, $26 \%$ buy Gala, 13\% buy Granny Smith, 5\% buy Fuji, and 1\% buy Golden Delicious. When asked how often they buy apples, $45 \%$ of respondents buy weekly, $22 \%$ buy biweekly, $15 \%$ buy monthly and $12 \%$ buy only for special events. The average amount of apples purchased in one trip is 2.4 pounds. Eighteen percent of respondents said that they prefer to buy apples packaged in bags, and $82 \%$ prefer to buy apples in bulk. Of those who regularly purchase apples, $78 \%$ buy apples in supermarkets, $13 \%$ buy in municipal marketplaces, $5 \%$ buy from street vendors, and $2 \%$ buy apples on buses. About $70 \%$ of the people who took the survey like to buy apples to eat for fresh consumption at home, $28 \%$ like to buy apples to give their children (for school snacks, for example), and $2 \%$ purchase apples to cook apple pie, make vinegar, or make purée for babies. Fifty-eight
percent of respondents reported that the quality of the apple has the greatest influence on their decision to purchase, however $42 \%$ of respondents stated that price is the main factor in their decision to purchase. Consumers in El Salvador do not care about the brand of the apple, nor its country or region of origin.

This research reveals that for Salvadorian consumers, the most important attributes when purchasing apples for personal consumption are visual quality, taste, firmness, size, and price. The typical Salvadorian consumer usually buys apples weekly in supermarkets, and most people buy during the Christmas Holidays. Medium and small-sized apples are preferred, as they are thought to be better for sharing with family members. Delicious and Gala are the varieties which are sold most frequently, and these varieties along with Granny Smith and Fuji have a large influence on sizes, prices and consumer preferences for apples in Central America. In terms of apple sources in El Salvador, the statistics show that Washington is the largest exporter of apples in the area, followed by California, Pennsylvania, Oregon, Michigan, and Virginia. Washington State continues to dominate the supply of apples in all of Central America with its most popular variety, Delicious. It could be stated that the Central American market is saturated with Delicious apples and that consumers do not have many other choices when buying apples. This situation gives opportunities to New England apple growers because apple varieties such as McIntosh, Empire, and Macoun have never been sold in Central American markets. Further studies are needed of varieties for Central American consumers.


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