Distribution, Production and Consumption of Fruits and Vegetables in South Dakota

A SURVEY OF GROCERY STORES IN SOUTH DAKOTA

SOUTH DAKOTA STATE UNIVERSITY EXTENSION &

SOUTH DAKOTA DEPARTMENT OF HEALTH

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Demographics

Approximately 319 surveys were mailed to grocers. The 45 respondents closely represented the population trend throughout South Dakota with more respondents on the eastern side of the state than the central and west. Seventeen respondents were located in the food-desert locations while 25 were in the non-food desert locations. Food desert locations are defined as having limited access to healthy and affordable food.

Of the respondents to this survey, 35.3% were the sole decision makers for fresh produce sold in food desert locations while 57.1% were sole decision makers in non-food desert locations. A majority of respondents indicated that it was a joint decision for the purchase of canned and frozen produce. Data indicated that 60% were locally owned single grocers while 20% were locally owned with multiple stores. Food desert locations were found to have more locally owned single stores. The remaining 10.7% survey respondents were regionally owned stores with one mass-merchandising store. The majority of stores had 25 or fewer employees, with all stores having 50 or more employees in non-food desert locations. Also, non-food desert locations generally had more customers than stores located in food deserts. About 71.4% of the grocery stores in the non-food desert areas had 1,000 customers per week, whereas only 53.9% of the stores in the food desert areas had more than 1,000 customers per week. We found that there was no substantial difference in the range of products sold in stores between the food desert and the non-food desert areas.

Among all respondents, 26.7% had a high school diploma, 31.1% had some college and 35.6% had a four year degree. Data indicated that a majority of the respondents were 46 years old or older. It was found that only one respondent in the food desert location was under age 35 while 47% were age 56 or older. A significant majority of the respondents to the survey had been in their role ten or more years. In summary, we found that respondents in food desert locations had a lower education level, were older and had the same or similar role for a longer period than those in non-food desert locations.

Marketing Strategies

Grocers were asked to rank ten selected marketing strategies (derived from previous survey data) to increase the consumption of fruits and vegetables. Their top three strategies were as follows:

1. Offering samples with locally sold produce.
2. In-store displays which offer coupons and "quick and easy" recipes.
3. Offering coupons only for fruit and vegetable products.

Survey data indicated that simply offering point of purchase "quick and easy" recipes, tip sheets and on-site cooking classes could be somewhat effective. Respondents considered statewide distribution of recipes and incentive items, point of purchase videos and statewide distribution tips via social media such as Twitter, Facebook, etc. to be much less effective than other options. Off-site cooking classes were considered the least effective strategy, especially for the grocers in the non-food desert areas.

Sales, Quality & Variety of Fresh, Frozen, & Canned Fruit & Vegetables

Overall, data indicated that grocers in the food desert areas reportedly had less annual fruit and vegetable sales than those in the non-food desert areas. However, the majority of the stores (69.9%), regardless of the store location, had experienced a slight or dramatic increase in the sales of fruit and vegetables in the past three years.

In terms of the percentages of sales, we found all the grocery stores sold the majority of their fruit and vegetables as fresh produce. Grocery stores in the food desert areas, compared to those in the non-food desert areas, had a higher percentage of sales of fresh produce. Data indicated that canned produce had a relatively higher percentage of sales in the non-food desert areas than it did in the food desert areas. Frozen products had a similarly small market share, both in the food desert and non-food desert areas.

Regarding grocers' self-rated satisfaction of quality and variety of the fruit and vegetables they carried and their fruit and vegetable sales, we found the respondents were content with the variety and freshness of the fruit and vegetables they carried. Grocers in the non-food desert areas had a higher level of satisfaction as compared to those in the food desert areas for their fresh fruit and vegetable produce; they were also more satisfied with the variety of canned and frozen products. Moreover, while grocers in the non-food desert areas perceived the turn-over rate could be a problem to limit their ability to provide a good variety of fruit and vegetables, these grocers did not seem too concerned about the influence of turnover rate on their pricing strategy as compared to the respondents in food desert areas.

Data showed a majority of the grocers felt home gardens reduced their sales of fruit and vegetables. We also found the cost, which grocers charge their customers had a larger impact on the decrease in sales of fruit and vegetables for grocers in the non-food desert areas as compared to those in the food desert areas.

Consumer Knowledge & Purchasing Decisions

Grocers feel their consumers have an overall understanding of the benefits of eating fruit and vegetables, but they were less assured whether their customers had an in-depth knowledge regarding the nutrition and health benefits of consuming fruit and vegetables. Grocers in the food desert had less confidence in the consumer's knowledge of the benefits of fruit and vegetables in the prevention of chronic diseases. They held a relatively neutral attitude towards consumers' knowledgeable of the cost-savings measures for purchasing fresh produce as compare to convenience products.

In terms of the important factors which affected consumers' fruit and vegetable purchasing decisions, grocers gave higher rates to the following: time to prepare food, knowledge to prepare fresh produce, cost/price, freshness, and family preference. Survey respondents felt that separately giving out cooking tips/recipes and coupons were considered less important to consumers. Data also indicated that grocers believed that a lower price was more effective than giving out coupons in encouraging consumers to purchase more fruit and vegetables. Data indicates the majority of grocers believe consumers in South Dakota are inclined to make unhealthy food choices as 80% of grocers indicated that consumers are easily swayed to purchase lower cost convenience foods with little nutritional value.

Locally Grown Produce

The survey included several questions regarding the sale of local produce. Thirty-two of 45 grocers (71.1%) currently carry locally grown produce. Non-food desert areas have a significantly higher percentage of grocers providing locally grown produce. A significant majority of survey respondents reported a gain in sales by displaying the “locally grown” signage/label in the past. A larger percentage of grocers in non-food desert areas (71.4%) found “locally grown” signage to be of benefit than those in food desert areas (64.7%). Over 91.1% noted they would display the “locally grown” signage if provided.

The survey further asked the grocers to disclose the numbers of monthly requests they received from their customers for locally grown fruit and vegetables. Data indicated that 21 grocers did not receive requests for locally grown produce. Among these 21 grocers, ten were in the food desert areas (58.8%) and eleven were in the non-food desert areas (39.3%). Forty percent of the respondents reportedly received 1-10 requests per month and 8.9% of grocers received 11-24 requests per month. Data showed that non-food desert areas received more requests for the locally grown produce as compared to the food desert areas. Though grocers in the food desert areas often experienced low demand; we found eight of seventeen respondents (47%) indicated they were somewhat or very interested in selling locally grown produce. In contrast, grocers in non-food desert areas received more requests from their customers; but were somewhat to less interested in providing more locally grown produce. Grocers were also asked to list the items and frequency of requests for locally grown vegetables. We found corn, melons, and tomatoes were the most popular requests from customers, regardless of the store locations.

The last part of the survey requested grocers to rate the following eight factors that might potentially limit their willingness or capacity to carry locally grown produce. Data showed that grocers had a split opinion regarding whether connecting with producers would be a factor: sixteen of the total respondents (35.6%) indicated low or somewhat low interest and the other sixteen respondents (35.6%) indicated somewhat high or high interest for this factor. Results indicated the connection to the local producers was more likely to be a concern for the grocers in the non-food desert than food desert areas. Two-thirds of grocers had a somewhat low or low concern with insufficient supply to meet demand; those in food desert locations indicated a lower concern than those in non-food desert locations. On the contrary, grocers are relatively more concerned about inconsistent supply. Data suggested that inconsistent supply was a more important factor for the grocers in the non-food desert areas. Regarding inferior quality of locally grown food, it was similarly found that grocers in food desert locations had a lower concern than those in non-food desert locations.

When asked the importance of the influence of price on their capability/willingness to carry locally grown produce, data showed an evenly split opinion. While some grocery stores considered price an important factor, a similar number of the sample grocers held an opposite opinion. We also found that seasonality is a factor in their capability and willingness to carry locally grown produce. For the grocers in food desert areas, transportation and receiving products were relatively not important, while transportation and receiving were important factors for a noticeable number of the grocers in the non-food desert areas.

The last question carries an important, if not inspiring, message for the local food marketers in South Dakota. Small demand has long been considered as a negative factor to explain the small market shares for the local produce. However, data strongly suggests that grocers, regardless their store locations, did not consider no/low demand as an important reason to their decision to carry locally grown fruit and vegetables.

Implications

On the bright side, a significant majority of the grocers felt that their sales of fruit and vegetables have increased slightly to significantly in the past three years. One large concern of the results from the survey is the age of the grocer, particularly in food desert locations; from the survey respondents there was only one individual in a food desert location under the age of 35. As these individuals continue to grow older there may be a question of who will take over the community store, which not only offers fruit and vegetables and other groceries, but also in many cases is a large part of the viability of the community. Another question to consider is what impact this will have on food desert locations.

When looking to increase the sale of fruit and vegetables grocers seem to feel that offering samples with locally sold produce was the number one marketing strategy, followed by in-store displays with “quick and easy” recipes, followed by offering coupons. They felt that only “quick and easy” recipes, tip sheets and on-site cooking classes could be somewhat effective. Statewide distribution of recipes and incentive items received an indifferent reply while use of social media was not well received as compared to other options. It may be that social media can be a time consuming process and could be difficult to manage for many of the singly operated or smaller chain stores.

Grocers felt that time, overall knowledge of preparation methods for fruit and vegetables, the cost/price, freshness and family preference strongly influenced consumer’s purchasing decisions. They felt that separately giving out coupons and quick tip sheets would not have as much of an influence on purchasing decisions. These considerations can provide insight into developing marketing strategies and consumer messages. As family preferences for vegetable and fruit have a large influence in consumer decisions, targeting younger populations to increase their exposure to fruit and vegetables may help to encourage overall consumption.

Grocers were assumed to have an overall understanding of the benefits in eating fruit and vegetables. However, they were less assured whether their customers had an in-depth knowledge regarding the nutrition and health benefits of consuming fruit and vegetables. Those in food desert locations had less confidence in the consumer’s knowledge of the benefits of fruit and vegetables in the prevention of chronic diseases. Also, a significant number of grocers felt that consumers are easily swayed by lower cost convenience foods with little nutritional value. Local and statewide educational programming may focus on these factors to encourage the increased consumption of fruit and vegetables as well as increase the nutritional status of South Dakotans.

Two-thirds of survey respondents indicated that they currently offer locally grown produce and that the signage they provide for it helps to increase sales. Results indicated that grocers in non-food desert locations had more of a concern with connecting with locally grown produce venders as well as a concern with sufficient supply to meet demand and concern for inferior quality. These factors may provide some educational opportunities for locally grown market venders as well as grocers across the state. Testimonials from grocers who provide locally grown produce and venders who supply the produce may help to relieve some of the anxieties of those do not reach out or expand to these markets.

Though there are a lot of opportunities for improvement in the consumption of fruit and vegetables, grocers are feeling good about the variety and selection of products they offer clients and are doing their best to meet client needs.

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