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## **RESEARCH UPDATES**

#### "Estimating Florida Per Capita Fish and Shellfish Consumption." R. L. Degner and C. M. Adams (University of Florida)

Recent concerns regarding chemical, bacterial, and viral contamination in Florida seafood has prompted interest in measuring annual consumption of certain key species groups by Florida residents, particularly recreational and subsistence fishermen. Improved consumption estimates are needed to assess risk levels associated with seafood consumption by specific population segments. This information will provide a basis for more effective targeting of any future state and federal health-related seafood consumption advisories.

The basic objective is to determine the quantities of finfish, mollusks, and crustaceans produced in Florida waters and consumed by Florida residents on an annual basis so that dietary risks associated with seafood consumption may be assessed. Specific objectives are to:

- (1) Estimate the quantities of finfish and shellfish consumed by the general Florida population and identify those socio-demographic segments of the population that are at greatest risk.
- (2) Estimate seafood consumption for selected geographic and socio-demographic subgroups. These subgroups are: (a) residents in counties of special concern where bleached kraft paper mills are located, and where per capita income is relatively low; and (b) subsistence fishing households participating in the food stamp program.
- (3) Estimate quantities of specific types of seafood consumed at home by source, i.e., recreationally caught vs. commercially caught and freshwater vs. saltwater.
- (4) Estimate quantities consumed away from home, taking into consideration the relative importance of commercially produced seafood of Florida origin.

To meet the above objectives, the study is organized into two phases. Phase I will consist of a telephone survey of the general population of Florida and residents of households in counties where bleached kraft paper mills are located. Phase II will focus on low-income "subsistence fishing households," i.e., those households that are hypothesized to be heavy consumers of seafood items, particularly fish that are caught by household members.

The large-scale telephone survey of the general population of the state will be used to estimate seafood consumption patterns and assess dietary risk exposure for selected socio-demographic groups. A telephone survey is proposed to allow for broad-based, statistically representative and efficient interviewing. About 8,800 telephone interviews will be conducted over the course of one year. For Phase II, face-to-face interviews of low-income respondents will be conducted onsite at selected public assistance offices in five counties where subsistence fishing is thought to be prevalent. Face-to-face interviews are necessary to reduce potential bias that could result from lack of telephone service and language barriers in low-income ethnic households.

In both phases, respondents will be asked to recall the quantity of seafood consumed at home and away from home for the one-week period immediately preceding the interview. Species names or groups will be asked of all respondents in order to provide them with a recall aid, and also to help classify the various seafood items as fresh or saltwater species. Ages and sex of all household members consuming seafood items will be obtained. Annual per capita estimates of seafood consumption by species groups for various demographic subgroups of the Florida population will be generated by extrapolating the weekly recall estimates to an annual basis. Consumption estimates will also be generated by extrapolating the weekly recall estimates to an annual basis. Consumption estimates will also be examined by frequency of recreational fishing, participation in welfare programs and household income levels, and other socio-demographic characteristics to determine the association of these variables with seafood intake. This will provide insights to the potential exposure of recreational fishermen and subsistence households to possible chemical, bacterial and viral contamination in Florida seafood.

#### "Why National Brand Manufacturers Are Changing Pricing Strategies." Robert S. Welsh (Central Michigan University) and Violeta Llanes (Otago University, Dunedin, New Zealand)

The focus of the research paper concerns the competitive situation between national brand food products and retail food firms' private label brands, and the marketing implications of this situation. National brands dominated the market until the end of the 1980s, but in the early 1990s changes developed in the market and with consumers. This is an analysis of what these changes have meant for national brand manufacturers in the United States. Also, there have been similar market and consumer changes elsewhere in developed countries of the world, and as an example of these changes, this paper includes a brief explanation of the brand competition situation in New Zealand.

Competitive Situation from the 1940s to 1990: Retail food firms' private label brands were important for the merchandising strategy of the nation's largest firms for more than forty years after World War II, even though national brands dominated the market. Most chains' private label sales were less than 15 percent of total grocery sales, but at one time in the 1970s, A&P's private label sales reached 35 percent. A&P's private label sales, however, dropped to 18 percent by the late 1980s.

National brands were able to dominate the market during this time period due to a high level of successful advertising resulting in a strong pull, and the development of franchises with consumers. Manufacturers successfully differentiated their products as being consistent and higher in quality, and consumers were willing to pay a premium price for national brands. The majority of the consumers at that time were at a level of brand preference or insistence for national brands. Low price was not the consumers' primary evaluative criteria, as national brands frequently were 15 percent to 20 percent higher in price than private label brands and often at about the same quality level.

Therefore, it was difficult for retail food firms to persuade consumers to change their purchases to private label brands. The market conditions (consumer desires and competition) changed in the early 1990s, and there have been significant changes in national brand manufacturers' and food retailers' branding strategies.

Market Changes in the 1990s and the Implications: Changes in the market during the 1990s are providing an excellent opportunity for private label brands. Many consumers currently are more price sensitive and their evaluative criteria for purchasing food products have changed.

The lower-priced private label brands offer a better (price/quality) value than the competing national brands. Also, consumers under the age of 45 do not seem to be as brand loyal as older consumers. Food chains are presently refocusing on private labels. Kroger and A&P, in particular, are being very aggressive with their private labels. The chains' 1990s approach is considerably different than past years. Not only are the private labels still lower in price, but food retailers in the 1990s have altered their promotional strategy. Like national brand manufacturers, they are effectively using television advertising. With these changes, one concern of the chains is whether or not the private label brands can maintain their lower price differential.

The result of the new approach is that retail food chains' private label brands are not private labels any longer. They are brands, and this has definite marketing implications. Furthermore, this approach may enable the retail food firm to solidify its image and tie into the idea of the store itself as a brand.

The very successful product differentiation efforts practiced by national brands for decades are deteriorating, and the market power of food retailers is increasing. For some product categories, private label brands have a larger market share than national brands. Store private label brands now are over \$25 billion in supermarket sales, and 18 percent of total sales. This is an increase from 15 percent in 1988. Furthermore, many retailers have a preference for strong private label brands because they generate higher profit margins. An increasing number of consumers are trying private label brands, and many have reached the conclusion that, for many products, the national brand quality is no longer significantly different and the price is higher. Therefore, if there is a considerable price differential (lower) for the private label brands and the quality is comparable to national brands, private label brands will continue to increase their market share. Consequently, manufacturers must make changes to compete.

Strategy Changes by National Brand Manufacturers: Many changes are being made due to the aggressive strategy pursued by retail food firms' private label brands, and because of the change in consumers' evaluative criteria. High price premiums for famous national brands now are more difficult to attain due to the market conditions. The surviving brands probably will be the number one and number two national brands in a product category, along with the private label product(s). Many other branded products probably will get squeezed off of shelves in the shortage of shelf space due to the thousands of products in the store.

The result is that many national brand manufacturers are "right sizing" to reduce costs, dropping brands, lowering prices, and altering advertising expenditures and types of media used. The surviving national brands will offer lower prices, better quality, continuous innovations, and/or high profit margins to the food retailer.

Situation in New Zealand: The private label brand challenge to national brand products in New Zealand is increasing. New Zealand, however, lags considerably with comparative overseas private label use. Switzerland had a private label market share sales volume of 45 percent, and Great Britain of 26 percent in 1991. Private label usage in New Zealand is climbing rapidly as consumers and retailers become more aware of the advantages. Retail food firms are pursuing the same strategy as in the United States, which is to meet national brand leaders on quality, but price lower. The private label brand penetration in New Zealand was seven percent in 1991, and by 1993 had increased to over 10 percent.

New Zealand seems to be following the United States' experience, where consumers are increasingly switching to private label brands as they balk at prices for their favorite packaged goods. Retail food firms have accelerated the trend by moving away somewhat from lower price to a better value position for their own private label brands. The losers in the price-value tug-of-war probably will be brands that do not have a clear image or differentiation. Therefore, manufacturers need to focus on unique sales points, image, desirability, and aspirational values in order to compete in New Zealand. It seems, however, that private label brands will continue to increase their market share.

*Conclusion:* National brand manufacturers must remember that their products are on store shelves next to private label brands and many consumers do compare products on the basis of the price-quality-value factor. To be successful in the future, national brand manufacturers must contain their costs, deliver a wellknown brand at a competitive price, and offer retailers a substantial markup to push their products. The threat is real, as there are predictions that the private label brand share of the retail food store market will be somewhere between 30 percent and 45 percent by the end of this decade.

#### "The Impact of Gross Margin-Price Elasticity on Retail Produce Pricing." George K. Criner (University of Maine)

During the 1980s, both the diversity and economic importance of the U.S. produce industry increased significantly, with cash receipts expanding from \$14 to \$21 billion. Consumer expenditures for produce products approached \$100 billion in 1991, with farm level produce cash receipts providing approximately 15 percent of farm food and fiber income, and produce purchases by consumers constituting 25 percent of the consumer grocery bill.

This industry growth is a result of many factors, including scientific and technical advances in production, expanding U.S. population, increased international trade, and greater consumer awareness of the need to have a nutritious and balanced diet. During the 1990s, it is anticipated that industry-sponsored programs such as the "5 a Day - for Better Health" campaign will continue to expand fruit and vegetable consumption. During this same time, researchers of produce retailing realized that a strong unified theory to explain retail produce pricing strategies is lacking.

There are several strategies which are used to explain pricing of produce at the retail level. Recent analysis of produce pricing at retail has pointed out that "price" is not necessarily acting as a supply/demand equilibrium device. Supermarket produce pricing is often associated with the store's overall image, and weekly variation in produce prices is part of an overall produce section pricing strategy. While these pricing generalities have been accepted for many years, few formal hypotheses have been put forth which explain in more detail specific produce pricing strategies.

This research puts forth a hypothesis which is both in agreement with retail produce pricing behavior and economic theory. For example, it is hypothesized that bananas have a wide variety of supermarket price patterns due to their relatively low (absolute) elasticity of aggregate gross margin with respect to supermarket price. Such a scenario provides a rationale for the wide variety of pricing patterns which bananas experience. Under the hypothesis, the store could use banana pricing in a variety of merchandising manners and not suffer a loss in banana aggregate gross margin. For stores that have at least one major produce item selling below "usual prices," bananas could be priced in a lower price range when it is not advantageous to discount other produce items. The next phase of this research will involve an expansion of the analysis and formal testing of the hypothesis.

"A Pilot Study of Plans that the United States Food Industry Has for Participating in Former Soviet European Republics." R. R. Cangemi and R. H. Lopez (Pace University, White Plains, NY)

**Problem:** The breakup of the U.S.S.R. has opened up business opportunities for free enterprise approaches to business in the newly reformed nations. Going from a centralized planned economy within a totalitarian political system to decentralized economic and political entities based on new national borders could offer potential new areas of growth for U.S. food processing companies. The nations investigated in this study have a combined population of approximately 225 million people. This is almost the size of the United States or the European Community. In an attempt to understand the plans and concerns of the food industry for participating in these nations, a survey of the largest food processing companies in the United States was conducted.

Methodology: Seven former Soviet European Republics were covered in this study: three Baltic countries (Estonia, Latvia, Lithuania), Russia, Belarus, Ukraine, and Georgia. During the third quarter of 1992, a mail survey of chief executive officers of the 100 largest food processing companies in the United States asked them to indicate whether they were:

- (1) Currently participating and planning to continue to participate in these countries;
- (2) Not participating now but planning to over the next five years; or
- (3) Not participating and not planning to over the next five years.

Each group of respondents was asked to identify major concerns regarding carrying out business in these nations, and for those doing business or planning to do business the means by which they are participating or will participate.

The total food sales of these 100 companies represents approximately 65 percent of the value of shipments in food processing in the United States, or approximately \$285 billion in 1992.

*Results:* Twenty-two percent of the sample responded to the survey, and 13 percent completed the questionnaire. The companies that did not complete the questionnaire stated that it was company policy not to participate in surveys. Of those that answered the questions, only 38 percent are either conducting business now or planning to carry out business in these countries over the next five years. Sixty-two percent are not participating in these countries now, nor are planning to over the next five years.

Major Findings and Implications: The respondents that are neither conducting business in the subject countries nor planning to over the next five years represent the smaller sales volume companies in the sample. The major concern mentioned by most of these companies was that there are more short-term opportunities domestically and in other foreign markets. These companies also have a very small percentage of their food sales generated from sales outside of the United States. This finding is consistent with the development of a corporate strategy that encourages first pursuing opportunities domestically before diversifying internationally. This strategy is reinforced when the alternative international opportunities are in countries with less stable governments than those covered in this study. Other reasons given for not participating are unstable governments; too many years to become profitable; safety of investments; lack of banking and hard and convertible currency; and poor distribution system including packaging, waste and spoilage.

The larger companies that are either conducting business in the subject countries now nor planning to over the next five years currently generate a large percentage of their total sales in countries other than the United States. Therefore, participating in the countries of this survey is a reasonable next step as these companies expand their international food business. The countries that are most interesting for these companies to participate in are Russia and Ukraine. No companies are doing or planning to do business in Georgia. With the exception of only one very large company, none of the Baltic countries or Belarus were of interest to the respondents. The respondents' means for participating in the subject countries are either to export products from the United States or another country, or a joint venture with a local company.

The major concerns those companies have for participating in the subject countries are: lack of banking system and hard and convertible currency; unstable governments; poor distribution system including packaging, waste and spoilage; and lack of business culture.

Overall, the U.S. food processing industry does not have aggressive plans for participating in the former Soviet European Republics. The larger of the companies in the sample report show some small interest, and the smaller companies show no interest.

"Consumer Tradeoffs in Food Risks, Cosmetic Appearance, and Price: A Qualitative Analysis." V. Kerry Smith, Edmund A. Estes, & Young S. Eom (North Carolina State University)

Domestic fresh fruit and vegetable consumption has increased during the past five years despite intense media scrutiny focusing on food safety issues and greater consumer concerns about possible harmful effects from pesticide residues. For a significant number of consumers, the potential health benefits of eating fresh fruits and vegetables seem to outweigh possible pesticide residue and health safety risks. A consumer's decision to purchase a particular fruit or vegetable item depends on a number of factors, including price, appearance, and expected taste as well as potential health impacts. The overall objective in this research project was to identify and evaluate how consumers make tradeoffs among three specific purchase decision variables: cosmetic appearance, potential risks from pesticide residues, and price. Information concerning consumer choice tradeoffs would be collected via a mall intercept consumer survey questionnaire. Prior to development of the survey instrument it was critical to understand: 1) how consumers evaluate quality characteristics when they make fresh produce purchase decisions; and 2) how effectively we could communicate information about produce to survey participants since it seemed impractical to use actual produce in mall intercept interviews.

Project research is still ongoing, and thus final project findings cannot be reported at this time. Instead, this update will focus on the procedures and methods used to communicate exact information about produce characteristics such as appearance and risk to consumers. To improve our understanding of consumer produce purchase processes and to minimize communication errors in the final survey instrument, focus group sessions were conducted in Raleigh (NC), San Francisco (CA), and Wichita (KS). A local market service firm in each city was employed to identify potential focus group participants and to stratify participants according to demographic features (race, sex, income, and education). Each focus group session lasted about two hours and each of the nine or ten participants was paid a nominal fee. Focus groups provided us with an opportunity to obtain direct feedback on how effectively important concepts and notions were in conveying produce appearance and health risks.

For the Raleigh focus group, detailed slides of apples, citrus, lettuce, and celery were presented to participants to determine whether: 1) slides could simulate "true" market conditions well enough that consumers could make purchase choices; and 2) the extent of consumer resistance to choosing produce without "handling" it. Alternatively, for the other two focus group sessions, life-size photographs of produce items were presented so that a series of photos displayed both the front and back of an item. The services of a food stylist and a professional photographer were employed to ensure that the pictures were of sufficiently quality that shoppers could easily see any defects such as bruises and blemishes. For each item, paired sets of photos were presented as "conventionally grown" and as "organically grown," but information defining these terms was not presented.

After evaluating all focus group information, it was our opinion that slides did not perform effectively in communicating the concept of cosmetic defects to simulate market choices for consumers. Detailed photos, while performing better than slides, also presented problems for some consumers. Despite the great detail contained in the photos, some consumers were reluctant to "buy" an item and stated some preference for wanting to "handle" it.

Several alternative approaches are under consideration for the survey phase of the project. The primary alternatives under consideration are: 1) interview participants in a controlled setting such as a "food laboratory," where actual produce displays might be constructed, rather than in a mall; and 2) conduct mall intercept surveys using a combination of detailed photos, sketches, and microcomputer software programs while recognizing that some consumers will have difficulty making a purchase decision using only this information. Because of cost differences between these two approaches, the combinatory approach using photos and sketches likely will be used to collect survey information rather than the food lab approach.

### "A Content Analysis of "Marketscan -- At the Checkout" in the *Wall Street Journal* During a 25 Week Period." Dr. James J. Corbett (Merrimack College, North Andover, MA)

Purpose of the Study: The Wall Street Journal is a topnotch national business publication covering each and every aspect of the business community. It has run many articles concerning the food industry. One in particular, "Marketscan -- At the Checkout," appears every Tuesday and Thursday. The purpose of this study was to examine the frequency of specific product category areas that have been the focus of "Marketscan -- At the Checkout" during a 25-week period.

Focus of the Study: The focus of this study was to examine the contents of the "Marketscan -- At the Checkout" articles using a content analysis approach. Fifty articles by 18 different authors were examined. The 25-week time frame in which the articles appeared ran from March 9, 1993 to August 26, 1993.

Methodology of the Study: By using a content analysis approach, I was able to identify the frequency of specific category areas that have been the focus of "Marketscan -- At the Checkout." The major product categories for this content analysis were broken down into the following 17 topics: dairy, meats, seafood, produce, deli, bakery, floral, magazines, video, pharmacy, confections, health & beauty aids, general merchandise, grocery items, private labels, frozen foods, and various others.

Findings: From March through August 1993, 50 "Marketscan -- At the Checkout" articles were examined. The analysis as shown in Figure 1 indicates that the major product categories' frequency percentages were as follows: grocery items, 26 percent; health and beauty aids, 24 percent; general merchandise, 12 percent; dairy products, eight percent; private labels, eight percent; frozen foods, six percent; confections, six percent; meats, four percent; various others, four percent; and produce, two percent. It is interesting to note that there were no articles written during this time concerning seafood, deli, bakery, magazines, floral, pharmacy, or video.

By combining the major product categories, the analysis, as shown in Figure 2, indicates that the combined major product categories' frequency percentages were as follows: grocery edibles, 32 percent; health and beauty aids, 24 percent; perishables, 20 percent; grocery non-edibles, 12 percent; private labels, eight percent; and various others, four percent.

Summary: This study suggests some surprising as well as some not so surprising things. Not so surprising is that the combined major product categories' frequency percentages for grocery edibles (32%) and grocery non-edibles (12%) appear to this author to be what one might expect, and consistent with their respective market shares.

Most surprising, perhaps, is the fact that the combined major product categories' frequency percentages for health and beauty aids (24%) and perishables (20%) appears on the surface to be inconsistent with their respective market shares. Perhaps the most interesting discovery is that there were no articles written on seafood, deli, bakery, or floral. It was not surprising that there were no articles written about magazines, video, or pharmacy.

However, the author feels that the Wall Street Journal staff deserves a great deal of credit for the product category coverage in the "Marketscan -- At the Checkout" articles. In my opinion, these interesting and informative articles were very representative of the food industry. Figure 1: A Content Analysis of the <u>Wall Street</u> <u>Journal</u>'s "Marketscan -- At the Checkout" Articles from March 9, 1993 through August 26, 1993.

Major Product Categories	Frequency	Frequency Percentage
Grocery Items	13	26%
Health & Beauty Aids	12	24%
General Merchandise	6	12%
Dairy Products	4	8%
Private Labels	4	8%
Frozen Foods	3	6%
Confections	3	6%
Meats	2	4%
Various Others	2	4%
Produce	1	2%
Seafood	0	0%
Deli	0	0%
Bakery	0	0%
Magazines	0	0%
Floral	0	0%
Pharmacy	0	0%
Video	0	0%
		100 %

Figure 2: A Content Analysis of <u>Wall Street Journal</u> "Marketscan -- At the Checkout" Articles from March 9, 1993 through August 26, 1993.

<b>Combined Major Product</b>		Frequency
Product Categories	Frequency	Percentage
Grocery Edibles	16	32%
Health & Beauty Aids	12	24%
Perishables	10	20%
Grocery Non-Edibles	6	12%
Private Labels	4	8%
Various Others	2	4%
		100%

"Analysis of the Mid-Atlantic Market for Crawfish--Retail Level." Andrew J. Groff, J. Richard Bacon, C. M. Gempesaw II, Ulrich C. Toensmeyer (University of Delaware)

Introduction: There is an increased interest in the Mid-Atlantic region concerning the viability of producing and marketing fresh fish and seafood, such as crawfish. Mid-Atlantic producers are continuously seeking alternative business enterprises to improve their economic viability. Previous research by the above authors investigated the consumer and wholesale levels and the results of those studies have already been reported. In order to complete the analysis of the marketing channel, we will now analyze the retail level and then combine all three studies to determine similarities and differences.

*Objectives:* The overall objective is to identify the market potential for crawfish and other seafood products within the Mid-Atlantic region. Specific objectives are:

- (1) To determine present and potential sales for fresh fish and seafood, especially for crawfish, through retail stores.
- (2) To identify food safety and supply concerns as related to retail stores.

**Procedures:** In order to achieve the above objectives, a mail survey of food retailers in the region will be conducted. The retail questionnaire will include such items as: 1) type and availability of suppliers; 2) characteristics of a good supplier; 3) major fresh fish and seafood items currently and potentially selling, especially crawfish; 4) extent of selling farm-raised items, and what would entice retailers to seek out farmraised fresh fish and seafood items; 5) the need for inspection, and who would perform the inspection; 6) the need and desire for nutritional labeling; 7) concerns with lot size, seasonality, price fluctuations, packaging, product freshness, and selection; 8) customers' concern with price, packaging, availability, freshness, safety, etc.; 9) retailers' opinions concerning generic advertising; and 10) retailer characteristics, such as store size, etc.

"The Impact of Advertising on Consumer Patronage at Farmers' Markets." John R. Brooker, David B. Eastwood, Morgan D. Gray, and Kristie Cartier (University of Tennessee, Knoxville)

**Problem Statement:** Retail-oriented farmers' markets are competing directly with supermarkets for consumers' produce dollars. While many direct marketing outlets, such as on-farm markets, roadside stands, and pick-your-own operations may be financially profitable, there are usually two critical factors: outlet convenience and product appeal. Convenience means the outlet is close to the consumers' homes or on frequently travelled routes, i.e., it is as easy to reach as their favorite supermarket. Product appeal refers to some attribute or combination of attributes, such as perceived freshness, ripeness, quality, or price that entices consumers to make special trips to direct marketing outlets. Obviously, the combination of both outlet convenience and product appeal should be foremost in the decision-making process regarding the establishment of farmers' markets.

A new farmers' market was opened in Knoxville, Tennessee in May 1992. Results from a survey of shoppers during August 1992 reinforced the opinions of market officials regarding reasons for the low number of shoppers at the market. The three major problems appeared to be the relatively limited assortment of locally-grown produce, small amount of product on hand, and the perceived high prices. The mini-retailers and farmers on the market were informed of these perceptions and plans were established to resolve both of these problems during the 1993 season.

Objectives and Procedure: The objectives of this study were to determine if the major problems reported in 1992 had been resolved, and to evaluate the effectiveness of alternative advertising modes and on-site activities to attract shoppers to the market. Assortment and price are associated with the issue of product appeal, and on-site activities and demonstrations are associated with the outlet convenience issue. During July 1993, 1,000 mail-back questionnaires were distributed to a random sample of Knox County households. A second questionnaire was mailed two weeks later to encourage response from the selected households. A total of 344 usable questionnaires were received.

*Results:* Preliminary examination of the data with basic descriptive statistics has revealed several interesting points. For instance, 67 percent of the respondents reported having prior experience at purchasing fruits and vegetables at a farmers' market. In comparison to produce at supermarkets, 45 percent of these respondents reported that they did not feel the produce at farmers' markets was any different, or they didn't know. An apparent conclusion is that nearly half of the food shoppers at farmers' markets do not perceive a quality-related benefit from purchasing produce at farmers' markets. One implication for future advertising campaigns is the need to convince potential shoppers of a benefit or benefits they could enjoy by patronizing a farmers' market. Most of the respondents (92%) reported that they had heard about this new farmers' market. Nearly half of the respondents (49%) visited the market at least once during 1992, while slightly less than onethird (29%) revisited the market in 1993. Apparently, many respondents decided not to return to the market after their shopping experience in 1992. Perhaps another advertising campaign could target previous farmers' market shoppers to convince them to give the market a second chance.

Of the respondents that knew of the market's existence. 94 percent learned about its existence during the previous year. When asked to identify why they did not visit the market, respondents reported that it was too far to drive (65%), they do not buy enough produce to make the trip worthwhile (54%), the same products are available at more convenient locations (53%), and acceptable quality is available elsewhere (40%). When asked what would need to be added or changed to make the market a place they would patronize, 50 percent reported "lower prices" and 48 percent reported "more locally-grown produce." Unfortunately, the prices, quality, and volume of anticipated key vegetables and fruits were adversely impacted in 1993 by the severe drought experienced during the summer. Because 38 percent of the shoppers reported that advertised prices impact their decision about where to shop, the farmers' market could include more price information in its ad.

Work in progress: The standard set of demographic information was collected from the respondents and will be examined with the shopping behavioral questions in a qualitative response model to permit estimation of the characteristics of shoppers most likely to be potential customers. This would permit the use of targeted ads to reach selected segments of the general public. Potential shoppers interested in "vine-ripened" fruits and vegetables may be the focus of certain types of ads designed to overcome the inconvenience factor by informing these individuals that some of the products are unique and worth the extra effort, at least during the local growing season. Other ads could focus on the households most likely to be influenced by special events and demonstrations.