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ANALYSIS OF RACQUET CLUB FRESH-PEELED CITRUS TEST

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Test Objectives

The purpose of the Racquet Club test was (1) to determine consumer preference for fresh-peeled citrus versus regular, unpeeled citrus at food service outlets, all else being equal; (2) to test the price sensitivity of fresh-peeled citrus products; and (3) to test the responsiveness of the demand for peeled citrus to promotional activity. Additionally, consumer surveys were conducted among consumers of peeled citrus products to determine their attitudes about the quality of the product.

Test Design

A test was designed for implementation at the Racquet Club, an eatery on the University of Florida campus that enjoys relatively high traffic volume and diversity of consumers. Over the eight-week test, various fresh-peeled citrus products were introduced at varying price points and levels of promotion. The test design is summarized in Table 1. The promotional activity took three forms: no promotional material; low-profile point-of-sale (POS) material; and high-ptofile POS material, including signage on the entry doors, table-top signage, and a "buyer's card," allowing a free citrus product after five previous purchases of citrus products.

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Table 1. "Fresh-Peeled Florida Citrus" market test schedule.

Test Week	Week Of	Product Description	Price	Promotion
One	1/22/96	Grapefruit—Half	.65	None
		Oranges	.50	
Two	1/29/96	Grapefruit—Half	.65	None
		Oranges	.50	
Three	2/5/96	Peeled Grapefruit—Half	.65	POS Only
		Peeled Grapefruit—Whole	.85	
		Grapefruit—Half	.65	
		Oranges	.50	
Four	2/12/96	Peeled Grapefruit—Half	.65	Full Program
		Peeled Valencia Oranges	.50	
		Grapefruit—Half	.65	
		Oranges	.50	
Five	2/19/96	Grapefruit—Half	.65	Full Program
		Oranges	.50	
Six	2/26/96	Peeled Grapefruit—Whole	.65	Full Program
		Peeled Valencia Oranges	.50	
Seven	2/4/96	Peeled Grapefruit—Whole	.65	Full Program
		Peeled Grapefruit—Segments	.65	
		Peeled Valencia Oranges	.50	
Eight	3/18/96	Peeled Grapefruit—Whole	.85	Full Program
		Peeled Valencia Oranges	.60	
		Peeled Grapefruit—Segments	.85	
		Peeled Valencia Orange—Segments	.60	

NOTE: Peeled citrus available on Wednesday through Friday of test weeks only. POS indicates signage only. Full Program included increased POS and other signage, as well as a "buyer's card," which allowed a free purchase of citrus after five previous purchases.

For the purposes of analysis, composite variables for daily grapefruit sales and orange sales were used. The composite variables are the sum of the daily sales transactions across all forms of oranges and grapefruit. Thus, there are composite-grapefruit and composite-orange values.

Since both whole and half grapefruit were sold, two grapefruit composites were created. The first, composite-grapefruit1, counted transactions of peeled-half and peeled-whole grapefruit equally. The second composite-grapefruit2, valued transactions of peeled-whole grapefruit as twice those of peeled-half grapefruit.

Test Results

The mean daily sales transactions for the composites were compared for the test and control days. Peeled fruit was available on test days, while only regular fruit was available on control days. The results of the means analysis appear in Table 2. The means of the test days were significantly higher than the mean sales on the control days at the 99% confidence level. As the variances in the composite variables were different between test and non-test days, an unequal-variances analysis was used in testing the means.

Table 2. Mean daily transactions of composite grapefruit and orange.

Item	Control	Test
Grapefruit1	6.9	26.2
Grapefruit2	6.9	41.3
Orange	2.7	30.7

Regression analysis was used to estimate the effects of prices, promotional activities, and the presence of the peeled citrus. Models were specified where daily sales of grapefruit or oranges were a function of composite prices, the presence of peeled grapefruit, the level of promotional activity, the total number of transactions at the Racquet Club, and the presence of peeled oranges. Two models were estimated for grapefruit; the first used composite-grapefruit1 as the dependent variable, the second used composite-grapefruit2.

The composite-price variable in the grapefruit models was calculated by dividing revenue from all grapefruit sales by the proper grapefruit-transactions variable, either composite-grapefruit1 or composite-grapefruit2. Dummy variables indicating the presence of peeled grapefruit and peeled oranges, as well as the cross-price variable, were included in both models to test if peeled grapefruit and peeled oranges are substitutes for one another. Thus, grapefruit was modeled as a function of grapefruit prices, the presence of peeled grapefruit, oranges prices, the presence of peeled oranges, and the other variables. Initial regression results suggested that the composite-grapefruit1 variable was an incorrect specification; that is, consumers considered a whole grapefruit as two halves. Hence, only the model based on composite-grapefruit2 was used for further analysis. Specifics about the variables are discussed below; results from linear, OLS regressions are shown in Table 3.

Regression Results

In the grapefruit model, the coefficient estimate for the own-price variable (ALLGFP) was negative, as expected, and significant. This indicates that as price decreases, consumption increases. Also, the estimated cross-price coefficient (ALLORP) was positive and significant, as expected, indicating that oranges are substitutes for grapefruit.

Table 3. Regression results of the grapefruit and orange models.

Item	Grapefruit Model	Orange Model
Intercept	.637	-34.920
	(16.927)	(34.028)
ALLGFP	-75.020*	9.827
	(16.533)	(16.636)
ALLORP	88.558*	51.575
	(24.996)	(74.639)
TEST	29.317*	-.639
	(5.697)	(5.280)
ORTEST	-10.816*	28.042*
	(5.435)	(5.028)
PROMO	1.025	.759
	(1.700)	(1.527)
TOTX	.007*	.003*
	(.002)	(.001)
N	44	44
df	37	37
R-Squared	.8454	.7584

* indicates significance at 90% level. Standard errors in parentheses.

ALLGFP = The weighted average composite price of grapefruit on any given day. An inverse relationship between this variable and the sales of composite-grapefruit is expected.

ALLORP = The weighted average composite price of oranges on any given day. A negative relationship between ALLORP and the sales of composite-orange is expected.

TEST = A binary dummy variable indicating the presence of any peeled grapefruit products.

ORTEST = A binary dummy variable indicating the presence of any peeled orange products.

PROMO = A dummy variable indicating one of the three levels of promotion.

TOTX = The total number of transactions at the Racquet Club. A positive relationship between total sales at the eatery and grapefruit or orange sales is expected.

In the orange model, the estimated own-price coefficient (ALLORP) was positive, but statistically insignificant. The positive sign is contrary to expectations and may be due to the relatively limited price data obtained from the test; there was relatively little price variation throughout the test (peeled orange prices were increased from $.50 to $.60 only in the final week). The unexpected own-price result for the orange model is discussed further in the section titled Caveats, below. The other price estimate in the orange model, that for cross-price variable (ALLGFP), was positive, as expected, but was not significant.

In the grapefruit model, the coefficient estimate for the TEST variable was positive and significant, as expected. Likewise, in the orange model, the coefficient estimate for the ORTEST variable was positive and significant, as expected. These results suggest that the presence of peeled grapefruit (oranges) may have a positive affect on the total daily sales of grapefruit (oranges). However, on the days that peeled fruit was available, shelf space allocated to citrus was vastly increased. As the TEST and ORTEST variables appear to have been perfectly correlated with the increases in shelf space, the coefficient estimates for these variables may also be capturing the effects of increased shelf space. This issue is discussed in greater detail in the section titled Caveats.

In both the grapefruit and oranges models, the estimated coefficient for the PROMO variable was of the expected sign, positive. However, these estimates were not statistically different form zero, indicating that promotions were ineffective.

In both models, the coefficient estimates for the TOTX variable, the measure of total store transactions was positive and highly significant, as expected. This indicates that grapefruit and orange consumption increases as store traffic increases.

In the grapefruit model, the ORTEST coefficient estimate is negative and significant, as expected. Thus, the presence of peeled oranges, as indicated by the dummy ORTEST, had a negative affect on grapefruit sales. In the orange model, the coefficient estimate for the TEST variable, indicating the presence of peeled grapefruit, was negative but not significant. The negative signs on these coefficients indicate substitution between the different types of citrus.

Table 4 shows the mean values of the non-dummy variables used in the regressions. Table 5 shows the mean values of the non-dummy variables, segmented by test and control days. It is worth noting that the mean price of the composite-grapefruit variable was lower during the test days than the control days. The use of the "buyer's card" may have caused the average price to decrease by giving a free piece of fruit after five purchases. Also, the pricing regime for peeled-whole grapefruit caused the price per unit (one-half grapefruit) to drop as low as $0.325. Grapefruit had three more test days than oranges, causing some variation in mean total store transactions when segmented by test and control days.

Table 4. Means of selected variables over entire study period.

Item	Grapefruit	Oranges
Price	$0.591	$0.505
Sales	18.6 (grapefruit halves)	10.4 (oranges)
Total Store Sales	1,521.8 (transactions	1,521.8 (transactions)

Table 5. Means of selected variables, segmented by test and control days.

Item	Grapefruit	Oranges
CONTROL		
Price	$0.650	$0.500
Sales	6.9 (grapefruit halves)	2.7 (oranges)
Total Store Sales	1,417.6 (transactions)	1,469.2 (transactions)
TEST		
Price	$0.481	$0.518
Sales	41.3 (grapefruit halves)	30.7 (oranges)
Total Store Sales	1,723.2 (transactions)	1,662.1 (transactions)

In summary, the results for the grapefruit model were statistically strong, except for the promotional effects, which could not be determined. At the sample means, the own-price elasticity of grapefruit was -2.39; the cross-price elasticity (for orange prices) was 2.40. The model indicates that, all else being equal, grapefruit sales should be about 29 halves higher when peeled fruit is available. The grapefruit model predicts sales of about six halves per day without peeled fruit, and about 35 halves per day with peeled fruit available. Note that this predicted gain is based on the TEST variable, which also includes any sales gains due to increased shelf space; see Caveats below.

The results for the orange model were not nearly as statistically strong as those for the grapefruit model. The only significant variables were the variables representing total store transactions (TOTX) and the presence of peeled oranges (ORTEST). The estimate of the ORTEST variable indicates that orange sales increase by about 28 oranges when peeled oranges are available.

However, as in the grapefruit model, the estimated coefficient for the ORTEST variable may also be capturing any sales increases due to increased shelf space.

Turning to the study objectives, we note the following. The first objective was to test consumer preferences of fresh-peeled citrus against regular citrus, all else being equal. Although, the models suggest that consumers prefer peeled citrus over regular citrus, peeled citrus also carried additional shelf space.

The second objective was to determine the price sensitivity of fresh-peeled fruit. Unfortunately, there were too few observations to determine price elasticities for fresh-peeled fruit alone. However, price elasticities for the aggregate of all types of grapefruit, over the entire study were determined; the own-price elasticity was -2.39, and the cross-price elasticity (with oranges) was 2.40. No elasticities for oranges could be determined.

The third objective was to test the sensitivity to promotional activities of the fresh-peeled fruit. Once again, there were too few observations to adequately test the promotional sensitivity of peeled fruit alone. In fact, even for the aggregate variables for grapefruit and oranges over the entire test, the promotional activity was undetermined.

Caveats

As mentioned in discussing the results of the experiment, the findings of this experiment should be tempered with some caveats. Below, further discussion of these caveats is provided. Recognition of experiment problems will hopefully be useful in improving the design and execution of future experiments.

First, some general comments on experimental design are made to help explain the caveats of this study. The design of an experiment should allow the study's objectives to be clearly tested. An important part of the experiment's design is controlling the levels of the different variables of interest. For example, if we are interested in how x affects y, we might first measure y without x present, all other factors held constant. This without-x value of y, can then be compared to the value of y when x is present, other factors continuing to be held constant. This is, we put stimulant x on and compare the result to the outcome when the stimulant was not present, holding other factors constant.

In addition to controlling for variables, there should also be sufficient numbers of observations on the different combinations of variable levels of interest (cells of the experiment). With few observations in some of the experiment's cells, the likelihood of obtaining statistically significant results is reduced.

Promotional Impacts

Turning to the present study, the levels of some important variables being tested were not, or were not adequately, controlled; and there were too few observations in some of the experiment cells. For example, one of the objectives was to test the responsiveness of demand for fresh-peeled citrus to promotional activity. During the entire period when fresh-peeled citrus was available, some version of the promotional program was also present. That is, the stimulant (the promotional program) was never taken off. Hence, it is not surprising that the promotional variable was not statistically significant. In essence, whatever the promotion impact was, it seems to have been part of the background.

Although some type of promotion occurred when peeled citrus was available, there was no promotion for the first week when only regular, unprepared citrus was available; and, this situation can be compared to the situation when the promotional program was present, which was when unprepared and/or prepared citrus was available, making it possible to measure the impact of promotion on citrus in general, regardless of the preparedness of the citrus. However, with promotional effects found to be statistically insignificant, apparently there were too few observations for the case of no promotion, to measure a general promotional effect, assuming, in fact, a promotional effect existed. It should also be mentioned that there may have been a learning process going on with consumers, which might have been correlated with the promotional program, increasing the difficulty of measuring promotional impacts. In addition, the failure to find a significant promotional effect may be related to shelf space, an important variable for the success in marketing a product.

Fresh-Peeled Impact

A potentially significant factor which was not controlled for in the present experiment was shelf space. Although data were not collected on shelf space levels, when prepared citrus was present, shelf space was increased substantially. Hence, two stimulants (prepared citrus and shelf space) are always put on and taken off together, and it is impossible to determine the effect of either stimulant. That is, we can not say for sure that peeled citrus stimulated sales; it could have been increased shelf space, or some combination of peeled citrus and shelf space, that was responsible for the increased sales.

There may also be an interaction between shelf space and promotion. Shelf space, by itself can be viewed as a form of promotion, and it may be that shelf space and the promotional program together stimulated sales (i.e., to some unknown degree, the statistically significant impact of the peeled citrus may not only be reflecting shelf space, but may also be reflecting promotion). However, to measure such a possibility, the experiment design would have to allow for measurement of shelf space, and appropriately vary shelf space and promotion.

Price Impacts

An objective of the experiment was also testing the price sensitivity of fresh-peeled citrus. This was another area where there was room for improvement in the experiment design. First, there is the problem of what is a unit of fresh-peeled grapefruit. Is the unit a half grapefruit or a whole grapefruit? It seems, one or the other should be chosen. If a half grapefruit is chosen, then when fresh-peeled grapefruit is sold for $.85 per whole unit, the price is $.425 per half unit. This price is much lower than the price of unprepared fruit, so that one might ask, is an increase in sales (when peeled grapefruit at $.85 per whole unit is being sold) due to price relative due to the percieved conveince of the peeled citrus? Grapefruit was sold in both half and whole portions, and if the size of the portion is ignored, regression analysis yields a positive grapefruit price effect. On the other hand, if the size of the portion is accounted for by treating a whole-peeled grapefruit as two halves, regression analysis yields a statistically significant negative price effect. Also, in the last three weeks of the experiment, when only prepared citrus was available, two price levels were set to see the impact of price on prepared citrus. This varying of price, however, was not unambiguously controlled. Specifically, when price was increased in the last week, another variable was changed,

i.e., peeled Valencia orange segments became available for the first time. Perhaps this reduced the impact of the higher price on demand; it may not have, but we cannot be sure. Also, the price discount card may have confounded the price experiment. This card was available for most of the time when higher prices were charged, possibly negating or reducing the higher prices. The discount card may have also reduced the lower prices but we do not know if the card uniformly affected the high and low prices; given the card required five purchases before a discount was offered, it seems more likely the card was used near the end of the experiment when the high prices are charged.

Another caveat, alluded to above, is that consumers are probably experiencing a learning process with respect to fresh-peeled citrus, which may be confounding the interpretation of the results. As the experiment progressed, more consumers may have become familiar with the new product and made more purchases. The impact of increased knowledge of the product would be expected to be greater near the end of the experiment when higher prices were charged, which, for example, could have confounded the pricing experiment.

Finally, although convenient, the study site at the University of Florida cafeteria was not representative of the food service sector, presumably the principle potential market for fresh-peeled citrus. Most of the consumers at the cafeteria were college students who may have been on food plans paid for by their parents. Such students may not be price conscious, often using food credit cards, in which case, the pricing part of the experiment may have been compromised. The possible lack of price consciousness by students may also indicate that cafeterias, like the Racquet Club at the University of Florida, may be good outlets for fresh-peeled citrus which may be priced higher than unprepared citrus. According to 1992 data from the *U.S. Statistical Abstract*, there are approximately 8.8 million students in four-year colleges nationwide.

Recommendations for Further Testing

Recommendations for further fresh-peeled citrus largely deal with correcting shortcomings discussed in the caveat section.

First, careful control of hypothesized stimulants to be tested, along with control of other possibly impacting factors, is recommended. Different stimulants should be put on and taken off separately, controlling for confounding variables.

The design of the experiment should also ensure sufficient observations in each cell of the experiment. In some cases, this may require less ambitious experiments with respect to the number of separate impacts studied. As more impacts are studied, more observations are needed to have sufficient degrees of freedom for statistical tests. The additional observations may be costly, and the study of some impacts may not be worth the additional cost.

Consumer experiments involving new products should also allow for the learning process that consumers are expected to go through. Perhaps, the new product should be made available for some period of time before testing begins.

Lastly, to survive, products need to be priced at cost or greater, with the exception of loss leaders. Hence, to reflect real-world circumstances, the prices of fresh-peeled citrus should reflect costs. Fresh-peeled and prepared citrus products involve a significant labor cost and prices in the experiment should reflect this cost. The above experiment was not designed to test the optimal, or even break-even, pricing of the peeled fruit. It was subsidized by the use of a research laboratory and cost-free transportation and packaging for the purposes of the test.

Consumer Surveys

Consumers who were observed to be eating a fresh-peeled citrus product were surveyed about the product. A total of 95 surveys were conducted; 51 of the surveys were based on a peeled-grapefruit product, 45 on a peeled-orange product. Abbreviated versions of the questions are shown below, along with responses. Note that there could have been multiple answers for some questions. A copy of the survey sheet with the full, unabridged questions, is attached.

- Answers from peeled-grapefruit consumers are in normal typeface.
- **Answers from peeled-orange consumers are in bold typeface.**

Question 1:	**HAVE YOU SEEN A PRODUCT LIKE THIS BEFORE?**			
	Yes		84.3%	**70.5%**
	No		15.7%	**29.5%**
Question 2:	**WHAT HAD THE MOST INFLUENCE ON YOUR PURCHASE DECISION?** (MULTIPLE ANSWERS POSSIBLE)			
	A.	Promotional materials	7.8%	**4.5%**
	B.	It's a healthy product	39.2%	**25.0%**
	C.	The convenience of the product	43.1%	**50.0%**
	D.	It looked good	33.3%	**29.5%**
	E.	Other	11.8%	**15.9%**
Question 3:	**IS THE PRODUCT?**			
	Sweeter than expected		15.7%	**25.0%**
	As sweet as expected		54.9%	**54.5%**
	Less sweet than expected		29.4%	**20.5%**
Question 4:	**IS THE PRODUCT?**			
	Juicier than expected		51.0%	**22.7%**
	As juicy as expected		49.0%	**68.2%**
	Less juicy than expected		0.0%	**9.1%**
Question 5:	**WOULD YOU BUY IT AGAIN?**			
	Definitely		58.8%	**70.5%**
	Probably		33.3%	**22.7%**
	Maybe/maybe not		3.9%	**4.5%**
	Probably not		2.0%	**0.0%**
	Definitely not		2.0%	**2.3%**
Question 6:	**WAS THE PRODUCT REASONABLY PRICED?**			
	Yes		90.2%	**95.5%**
	No		9.8%	**4.5%**

Question 7:	**IF PRODUCT COST 15¢ MORE, WOULD YOU BUY?**		
	More	0.0%	**0.0%**
	Same	60.8%	**81.8%**
	Less	39.2%	**18.2%**
Question 8:	**IF PRODUCT COST 25¢ MORE, WOULD YOU BUY?**		
	More	2.0%	**0.0%**
	Same	25.5%	**20.5%**
	Less	72.5%	**79.5%**
Question 9:	**HOW OFTEN DO YOU EAT FRESH FRUIT?**		
	3 times/week	78.4%	**75.0%**
	2 times/week	9.8%	**9.1%**
	1 time/week	7.8%	**9.1%**
	2 times/month	2.0%	**4.5%**
	At least 1/month, but less than 1 every 2 weeks	0.0%	**2.3%**
	At least 1/ three months, but less than 1/month	2.0%	**0.0%**
	Less than 1/ three months	0.0%	**0.0%**
Question 10:	**HOW OFTEN DO YOU EAT FRESH CITRUS FRUIT?**		
	3 times/week	43.1%	**47.7%**
	2 times/week	27.5%	**22.7%**
	1 time/week	17.6%	**22.7%**
	2 times/month	5.9%	**2.3%**
	At least 1/month, but less than 1 every 2 weeks	3.9%	**4.5%**
	At least 1/ three months, but less than 1/month	2.0%	**0.0%**
	Less than 1/ three months	0.0%	**0.0%**
Question 11:	**WHEN DO YOU EAT FRESH CITRUS?** (MULTIPLE ANSWERS POSSIBLE)		
	A. Morning	51.0%	**47.7%**
	B. Afternoon	33.3%	**45.5%**
	C. Evening	17.6%	**22.7%**
	D. Other	27.5%	**13.6%**
Question 12:	**WHAT TYPE OF "MEAL" IS CITRUS?** (MULTIPLE ANSWERS POSSIBLE)		
	A. Alone as meal	27.5%	**13.6%**
	B. As part of a meal	52.9%	**45.5%**
	C. As a snack in between meals	52.9%	**61.4%**
Question 13:	**SEX?**		
	Male	43.1%	**40.9%**
	Female	56.9%	**59.1%**

Question 14: RACE?		
Caucasian	84.3%	**81.8%**
Black	3.9%	**11.4%**
Hispanic	5.9%	**4.5%**
Asian	3.9%	**2.3%**
Other	2.0%	**0.0%**
Question 15: AGE GROUP?		
18-25	84.3%	**79.5%**
26-40	11.8%	**13.6%**
41-50	0.0%	**4.5%**
51-65	3.9%	**2.3%**
65+	0.0%	**0.0%**
Question 16: ATTITUDE ABOUT THE PRODUCT?		
Like extremely	13.7%	**15.9%**
Like very much	49.0%	**56.8%**
Like moderately	23.5%	**22.7%**
Like slightly	5.9%	**2.3%**
Neither like/dislike	5.9%	**0.0%**
Dislike slightly	2.0%	**2.3%**
Dislike moderately	0.0%	**0.0%**
Dislike very much	0.0%	**0.0%**

APPENDIX

"FRESH-PEELED FLORIDA CITRUS" SURVEY QUESTIONNAIRE

DATE:

TEST SITE:

TIME OF DAY:

SURVEYOR:

PRODUCT LINE BEING CONSUMED:

Hello, I'm from the Florida Department of Citrus. We're currently conducting a survey on the Florida citrus you are eating. If you have a minute, I would like to ask you several questions.

1. (IF THE RESPONDENT HAS PURCHASED A FRESHLY PEELED PRODUCT, ASK:) Have you seen a citrus product presented like this before?

   Yes ____
   No ____

2. What would you say, had the most influence on your decision to buy this citrus product today? Was it .... (READ LIST)

   The Promotional materials in the facility ____
   The fact that it's a healthy product ____
   The convenience of the product being peeled ____
   It looked good in the display ____
   Other _____

3. Thinking about the flavor of the product, would you say that the citrus you are eating is,

   Sweeter than expected ____
   As sweet as expected, or ____
   Not as sweet as expected ____

4. Thinking about the juiciness of the product, would you say that the citrus you are eating is,

   Juicier than expected ____
   As juicy as expected, or ____
   Not as juicy as expected ____

5. Would you buy this peeled citrus product again?

   Definetly would buy ____
   Probably would buy ____
   Might or might not buy ____
   Probably would not buy ____
   Definetly would not buy ____

6. In your opinion, was this product reasonably priced?

   Yes ____
   No ____

7. If the price of this product was .15 cent higher and taste the same as it does today, would you consume more, of the product, about the same amount, or would you consume less of the product in the future?

   Consume more ____
   About the same ____
   Consume less ____

8. If the price of this product was .25 cent higher and taste the same as it does today, would you consume more of the product, about the same amount, or would you consume less of the product in the future?

   Consume more ____
   About the same ____
   Consume less ____

9. On average, how often would you say you eat fresh fruit? (DO NOT READ LIST)

   Three times a week or more ____
   Two times a week ____
   One time a week ____
   Twice a month ____
   At least once a month, but less than once every two weeks ____
   At least once every three months, but less than once a month ____
   Less than once every three months ____

10. On average, how often would you say you eat fresh citrus?

Three times a week or more	____
Two times a week	____
One time a week	____
Twice a month	____
At least once a month, but less than once every two weeks	____
At least once every three months, but less than once a month	____
Less than once every three months	____

11. Thinking about those occasions when you eat fresh citrus, when during the day do you eat fresh citrus most often?

Morning	____
Afternoon	____
Evening	____
Other	____

12. And on those occasions when you eat fresh citrus, are you eating it alone as a meal in itself, or as just one part of a meal, or as a snack eaten "in between meal times" ?

Alone as a meal	____
As part of a meal	____
As a snack/ in between meals	____

13. Record Sex:

Male	____
Female	____

14. Record Race:

Caucasian	____	Asian	____
Black	____	Other (Specify)	_____
Hispanic	____		

15. Into which age group do you belong?

18 - 25	____
26 - 40	____
41 - 50	____
51 - 65	____
Over 65	____

16. Please circle the term that best reflects your attitude about the product you are eating.

Like extremely
Like very much
Like moderately
Like slightly
Neither like nor dislike
Dislike slightly
Dislike moderately
Dislike very much
Dislike extremely