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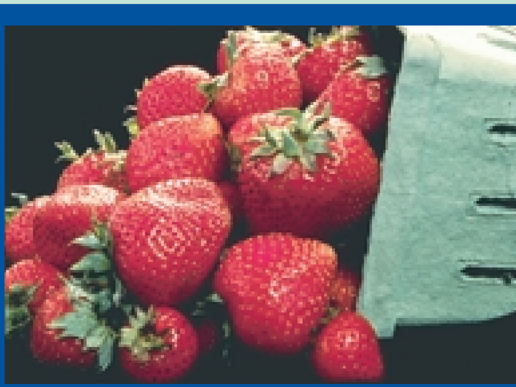

Factors Affecting Consumer Purchases of Direct Market Strawberries

strawberries
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Factors Affecting Consumer Purchases Direct Market Strawberries: 1999

Consumer Survey

ARE Report No. 22

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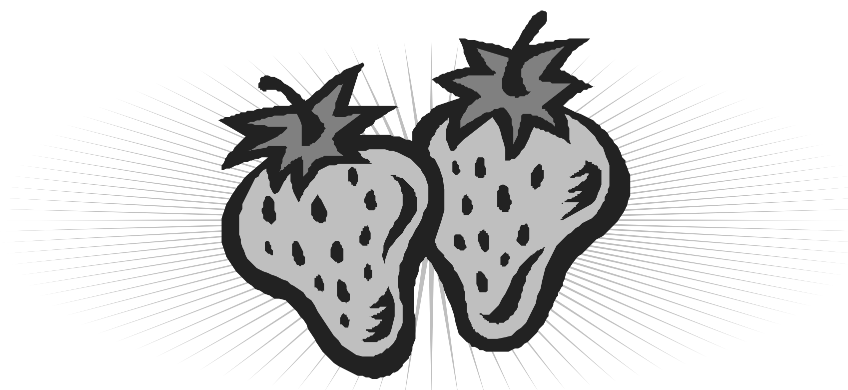

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Introduction

Like all retail businesses, marketing is a key factor in the success of horticultural enterprises that sell produce directly to the final consumers. Direct marketers, who know why customers buy their products and are aware of shifts in consumer demand, are better prepared to provide the goods and services necessary to be successful. Little marketing research has been conducted for the direct market strawberry industry in recent years and few direct market growers have the resources necessary to conduct extensive consumer surveys to discover information that will help improve their marketing efforts. While managers realize this information is beneficial, surveys are typically costly and time consuming and most growers are too busy managing their operations during the marketing season to interview customers. Therefore, a consumer survey was conducted during the 1999 Spring marketing season to collect data that will help strawberry growers in the direct market industry make more informed production, marketing, and advertising decisions. The primary goals of this study were to identify direct market strawberry customers and collect information about their buying behavior and the factors that influence their purchases of fresh strawberry. To achieve these goals, the survey concentrated on the following objectives:

1. Identify and characterize direct market strawberry customers.
2. Determine the key factors that influence consumer purchase decisions.
3. Compare consumer purchase intentions to their actual purchases.
4. Determine consumer satisfaction with the fruit and services currently offered at direct market strawberry operations.
5. Determine the effectiveness of advertising on influencing consumers to visit direct market strawberry operations.
6. Recommend changes to managers of direct market strawberry operations to improve their marketing and promotional programs.

Methodology

The North Carolina Strawberry Association, the North Carolina Department of Agriculture and Consumer Services, and the Department of Agricultural and Resource Economics at N.C. State University cooperated to conduct this customer survey at eight direct market strawberry operations throughout the state during the Spring of 1999. These operations represented typical strawberry operations across North Carolina in the major production areas from the Coastal to the Mountain regions. Since normal harvest dates vary by region, the surveys were completed in April in the Coastal area, May in the Piedmont region, and June in the Mountain region. Each operation offered the customers two options for buying strawberries. They could either pick their own strawberries from the grower's field or they could buy pre-picked strawberries at the grower's fruit stand. All of the growers used the annual hill production technique where the berries are grown on raised hills covered with black plastic.

The survey was divided into two segments. The first segment was administered when the customer arrived at the direct market operation. This part focused on their purchase expectations, their previous experience of picking strawberries, if they planned to pick their own fruit or buy pre-picked fruit, and the effect advertising had on their decision to visit the operation where they were interviewed. The second part was conducted as the customers left the operation and concentrated on their actual purchases, how the berries were to be used, the quality of the fruit and services received at the strawberry operation, and the socioeconomic characteristics needed to identify the various market segments. Although some respondents did not answer every question, a total of 1,647 usable questionnaires were collected.

Customer Profiles

Slightly more than half, 51.4 percent, of the consumers interviewed in this survey picked their own strawberries, while 48.6 percent bought pre-picked fruit **(Table 1)**. The "typical" pick-your-own (PYO) customer was between 25 and 44 years old, had an annual household income between $30,000 and $44,999, lived in a city or town, and at least one family member worked 40 or more hours per week **(Table 2)**. The second largest age group was 65 years old or older and the second most frequent income category was between $60,000 and $74,999 per year, however a significant number of customers earned $75,000 or more and ranked a close third. Excluding those who drove over 50 miles, the average number of miles customers drove to the operation was 9.76 miles, with 35.6 percent driving between 5 and 9.9 miles and 28.8 percent driving between 10 and 19.9 miles.

Table 1.

Location	PYO Customers	Pre-pick Customers	Total Customers
#1	26	210	236
#2	36	72	108
#3	166	137	303
#4	74	91	165
#5	145	10	155
#6	96	8	104
#7	137	127	264
#8	167	145	312
Total	847	800	1647
Percent	51.4	48.6	100.0

The "normal" pre-pick customer was also between 25 and 44 years old, had an annual household income of $75,000 or more, lived in a rural

Table 2. Selected Demographic and Residential Information for Surveyed Customers Compared to the North Carolina Population

	All Customers	PYO Customers	Pre-Pick Customers
	Percent	*Percent*	*Percent*
Age:			
Less than 18	0.6	0.6	0.3
18-24	2.5	3.3	1.9
25-44	34.5	43.1	25.2
45-54	18.3	15.2	21.8
55-64	16.9	14.3	19.7
65 or older	27.2	23.5	31.1
Average Age	51.7	49.2	54.3
Household Income:			
Less than $15,000	7.8	9.1	6.5
$15,000 - $29,999	16.8	14.7	18.9
$30,000 - $44,999	21.5	23.8	19.3
$45,000 - $59,999	15.2	15.0	15.2
$60,000 - $74,999	17.3	18.9	15.4
$75,000 or more	21.4	18.5	24.7
Adults Working 40 or More Hours Per Week:			
None	29.6	27.1	32.4
1	40.0	43.9	36.0
2	25.6	24.3	26.7
3 - 4	4.1	3.8	4.3
More than 4	0.7	0.9	0.6
Location of Residence:			
City or Town	48.1	50.6	45.2
Rural area, but not on a Farm	45.7	43.1	48.7
Farm	6.2	6.3	6.1
Miles Traveled			
0 to 4.9 miles	21.3	20.4	22.6
5 to 9.9 miles	33.3	35.6	30.9
10 to 19.9 miles	27.9	28.8	27.0
20 to 49.9 miles	12.9	12.1	13.3
50 miles or more	4.6	3.1	6.2
Average Miles Traveled			
Including customers traveling 50 miles or more	19.7	17.5	23.5
Excluding customers traveling 50 miles or more	9.9	9.8	9.9

area, and at least one family member worked 40 or more hours per week. The second largest age group was 65 years old or older and the second most frequent income category was between $30,000 to $44,999 per year. The average age was 54.3 years old and over 32 percent of the customers were retirees. Again excluding those who drove over 50 miles, the average mileage pre-pick customers drove to the fruit stand was 9.9 miles, with 30.9 percent driving between 5 and 9.9 miles and 27.0 percent driving between 10.0 and 19.9 miles.

Females shopping alone made up the largest population of shoppers followed by shopping parties composed of males shopping alone, male and female couples, and females with children **(Table 3)**. Most females and males who shopped alone patronized pre-picked operations while significantly most females who were accompanied by children frequented PYO operations. It

Table 3. Composition of the Shopping Party

Members in the Shopping Party	All Customers	PYO Customers	Pre-Pick Customers
Adult female	489	208	281
Adult male	308	109	199
Adult female and male	273	130	143
Adult female with one or more children	208	164	44
Two or more adult females	128	69	59
Adult female and male with children	52	42	10
Two or more adult males	51	21	30
Two or more adult females with children	46	36	10
Adult male with children	27	12	15
Two or more adult males with children	7	5	2

** Sixty-nine customers did not answer this question.*

is also interesting to note that of the 340 shopping parties that included children, 259 of these groups picked their own fruit while 81 shopping parties bought berries at the fruit stands.

Overall, a third of the respondents had never visited the direct market operation prior to the being interviewed for the consumer survey while two-thirds were repeat customers, that is they had previously picked and/or purchased strawberries at the same farm **(Table 4)**. PYO operations had the highest percentage of new customers, 39.1 percent, and the pre-pick fruit stands had the largest percentage of repeat customers, 74.3 percent. Slightly more than 42 percent of the repeat PYO customers had picked strawberries earlier in the season at the same operation compared to 47.8 percent of the pre-pick buyers who had purchased berries at the same fruit stand. Just over 11 percent of the consumers had either picked or bought strawberries at other direct market operations earlier in the year.

Table 4. Picking History of the Interviewed Strawberry Customers

	All Customers	PYO Customers	Pre-Pick Customers
	Percent	*Percent*	*Percent*
Is this your first visit to this farm?			
Yes (New Customers)	33.0	39.1	25.7
No (Repeat Customers)	67.0	60.9	74.3
Have you picked or bought strawberries from this farm earlier this year? *			
Yes	45.2	42.4	47.8
No	54.8	57.6	52.2
Have you bought strawberries from another farm this year?			
Yes	11.5	11.3	11.5
No	88.5	88.7	88.5

**Only those respondents who indicated they had previously visited this farm were asked if they bought strawberries on this farm earlier this year.*

Purchase Patterns

Not surprisingly, the vast majority of the customers planned to consume the strawberries fresh while freezing the berries was the second most popular use and processing the fruit for jam or jelly was the third most prevalent use **(Table 5)**. A larger percentage of the PYO customers intended to process the strawberries compared to the pre-pick customers. Over 35 percent of the PYO consumers were going to freeze the strawberries versus 17.3 percent of the pre-pick customers, and 14.2 percent of the PYO consumers were going to use the fruit to make jam or jelly versus 6.5 percent of the pre-pick customers.

Table 5. Intended Use of the Strawberries

Intended Use	All Customers	PYO Customers	Pre-Pick Customers
	*Percent**	*Percent**	*Percent**
Consume as Fresh	88.3	88.6	88.4
Freeze the Fruit	26.5	35.4	17.3
Process for jam or jelly	10.5	14.2	6.5
Other	9.2	9.9	8.7

**Percent of respondents. Respondents could select more than one intention.*

Upon arriving at the farm, customers were asked how much fruit they expected to pick or buy during their visit. When they left they were asked how much fruit they actually bought to determine any differences. PYO customers exhibited more variance between their anticipated

Table 6. Amount of Strawberries Customers Anticipated Buying Compared to the Amount They Actually Purchased

Volume	Anticipated Purchases	Actual Purchases	Difference
	(Average Pounds)	*(Average Pounds)*	*(Average Pounds)*
PYO Customers	9.8 lbs	11.6 lbs	+1.8 lbs
Pre-Pick Customers	6.9 lbs	7.1 lbs	+0.2 lbs
All Customers	8.3 lbs	9.4 lbs	+1.1 lbs

purchases and their actual purchases compared to pre-pick customers **(Tables 6)**. PYO customers anticipated picking an average of 9.8 pounds but actually picked an average of 11.6 pounds, for a net increase of 1.8 pounds. Pre-pick customers, on the other hand, exhibited relatively little variance, expecting to buy an average of 6.9 pounds and actually buying an average of 7.1 pounds for a net gain of 0.2 pounds.

The majority of the PYO customers, 38.6 percent, expected to pick between 6 and 10 pounds while 29.4 percent anticipated picking between 1 to 5 pounds and 18.2 percent between 11 to 15 pounds **(Table 7)**. Exit interviews revealed that 10.3 percent of the customers actually picked more fruit than they expected. An additional 6.3 percent of the customers picked more than 20 pounds of berries while another 2.5 percent picked between 11 and 15 pounds. Approximately 53 percent of the pre-pick customers, on the other hand, expected to buy between 1 to 5 pounds and about 30 percent anticipated purchasing between 6 to 10 pounds **(Table 8)**. Exit surveys showed that these percentages remained relatively stable. In fact, only 3.4 percent of the pre-pick customers actually purchased more fruit than they expected, while 2.5 percent bought fewer strawberries than they had intended to buy.

Table 7. Volume of Strawberries PYO Customers Expected to Purchase Compared to Their Actual Purchases

Volume	Percentage of Customers who Expected to Buy this Volume	Percentage of Customers who Actually Bought this Volume
1 to 5 pounds	29.4	24.2
6 to 10 pounds	38.6	36.1
11 to 15 pounds	18.2	20.7
16 to 20 pounds	8.8	7.7
Over 20 pounds	5.0	11.3
Average pounds	9.8 lbs	11.6 lbs

Table 8. Volume of Strawberries Pre-Pick Customers Expected to Purchase Compared to Their Actual Purchases

Volume	Percentage of Customers who Expected to Buy this Volume	Percentage of Customers who Actually Bought this Volume
1 to 5 pounds	53.5	53.1
6 to 10 pounds	30.1	29.8
11 to 15 pounds	9.2	9.7
16 to 20 pounds	4.8	4.1
Over 20 pounds	2.4	3.3
Average pounds	6.9 lbs	7.1 lbs

When ask to rank how important six factors were relative to their decision to purchase strawberries, both sets of customers ranked these features in the same order **(Table 9)**. Freshness was the most important factor while taste was ranked second, fruit firmness was third, fruit color was fourth, fruit size was fifth and price was ranked last. It was not surprising, therefore, that good fruit quality was the major reason consumers said that they decided to pick more strawberries than they had anticipated **(Table 10)** and poor quality was the primary cause for their decision to pick less fruit than expected **(Table 11)**. Consumers who discovered that the strawberries were easier to pick than they had expected ranked the "ease of picking" as having a positive impact on how much fruit they eventually picked while "picked over fields" or the lack of strawberries had the second largest negative impact on consumer picking decisions.

Table 9. Most Important Factor in Customers' Purchase Decisions

Factor	All Customers	PYO Customers	Pre-Pick Customers
Freshness	1	1	1
Taste	2	2	2
Firmness	3	3	3
Fruit Color	4	4	4
Fruit Size	5	5	5
Price	6	6	6

Note: *Customers were asked to rank each factor on a scale of 1 to 6, With the most important and 6 the least important.*

There was significant variation between the eight cooperating growers in the prices they charged for their PYO and pre-picked strawberries **(Table 12)**. PYO prices ranged

Table 10. Reasons Customers Picked More Strawberries than Expected

Reason	Number of Customers	Percentage of Customers
Good fruit quality	112	57.7
Easier to pick than expected	49	25.3
Good fruit size	15	7.8
Low prices	9	4.6
Other	9	4.6

Table 11. Reasons Customers Picked Fewer Strawberries than Expected

Reason	Number of Customers	Percentage of Customers
Poor fruit quality	23	31.1
Fields were picked over – not enough fruit	13	17.6
Too hot to pick	5	6.8
Small strawberry size	3	4.0
Too hard to bend over to pick	3	4.0
Fields were too muddy	1	1.4
High prices	0	0.0
Other	26	35.1

from $0.70 to $1.05 per pound and averaged $0.88 per pound for the eight operations while pre-picked prices ranged from $0.90 to $1.71 per pound and averaged $1.38 per pound. The smallest price gap between the two types of direct market outlets was $0.20 per pound at Location #1 where the owner charged $0.70 per pound for PYO berries and $0.90 per pound for pre-picked fruit. Conversely, the largest price gap was $0.79 per pound at Location #8 where the PYO strawberry price was $0.92 per pound and the pre-picked price was $1.71 per pound. On average, the price differential between the PYO and pre-picked fruit was $0.49 per pound.

Overall, the average amount of money consumers spent for strawberries was $10.20, with PYO customers spending an average of $10.30 and pre-pick customers spending an average of $9.40 for a difference of $0.90 per customer **(Table 13)**. Over 66 percent of the PYO customers spent between $1 and $10, 24.6 percent spent between $11 and $20, and 6.1 percent spent between $21 and $30. In contrast, over 75 percent of the pre-pick customers spent between $1 and $10 while 16.3 percent spent between $11 and $20, and 5.1 percent spent between $21 and $30.

Table 12. Strawberries Prices by Location, by the Type of Direct Market Outlet

Location	PYO Operation ($/lb.)	Pre-Pick Operation ($/lb.)	Difference
#1	$0.70	$0.90	$0.20
#2	$1.05	$1.33	$0.28
#3	$0.85	$1.25	$0.40
#4	$1.00	$1.40	$0.40
#5	$0.80	$1.25	$0.45
#6	$0.85	$1.50	$0.65
#7	$0.90	$1.67	$0.77
#8	$0.92	$1.71	$0.79
Average	$0.884	$1.376	$0.492

The average consumer expenditures compared to household incomes, the age of the respondent, and the number of working adults in the household are presented in **Tables 14 through 16**. Average expenditures for customers buying pre-pick fruit generally increased as household incomes increased. These outlays steadily rose from $8.97 for consumers with

Table 13. Amounts Customers Spent for Strawberries

Amount Spent	All Customers	PYO Customers	Pre-Pick Customers
	Percent	*Percent*	*Percent*
$0	0.1	0.0	0.3
$1 - $10	70.5	66.7	75.1
$11 - $20	20.7	24.6	16.2
$21 - $30	5.7	6.1	5.1
$31 - $50	1.9	1.8	2.1
Over $50	1.1	0.8	1.2
Average	$10.20	$10.30	$9.40

household incomes of less than $15,000 to $13.21 for those with incomes between $60,000 to $74,999 before dropping to $9.90 for customers with incomes equal to or greater than $75,000. In contrast average expenditures for PYO customers were more variable. PYO customers with incomes between $15,000 to $29,999 had the largest average outlay at $11.46, while those earning between $45,000 to $59,999 had the second highest average expense at $10.56 and pickers earning less than $15,000 accounted for the third largest expenditure at $10.46.

Table 14. Average Customer Expenditures Compared to Household Incomes

Household Income	All Customers	PYO Customers	Pre-Pick Customers
	Average Expenditures		
Less Than $15,000	$ 9.82	$10.46	$ 8.97
$15,000 - $29,999	$10.06	$11.46	$ 9.00
$30,000 - $44,999	$ 9.75	$ 9.93	$ 9.23
$45,000 - $59,999	$10.22	$10.56	$ 9.67
$60,000 - $74,999	$11.54	$ 9.65	$13.21
$75,000 or More	$ 9.58	$ 8.89	$ 9.90

Sorting the data by age revealed that PYO customers between 18 and 24 years old had the highest average expenditure of $12.68 per consumer. Those between 45 and 54 years of age accounted for the second largest outlay of $11.21 per consumer whereas customers between the ages of 55 and 64 were a close third, spending $11.17 per consumer. Pre-pick customers between the ages of 25 and 44 accounted for the highest purchases, $11.43 per consumer, followed by those between the ages of 45 and 54 who spent an average of $11.20 per consumer. Not surprisingly, customers who were 64 years or older had the lowest average expenditures of all the age groups, spending $8.82 at PYO operations and $8.51 at roadside stands.

Households where both adults worked more than 40 hours per week accounted for the largest average expenditures at both types of direct market outlets, $11.38 per customer at the PYO operations and $11.58 per customer at the fruit stands. When only one member of the family worked 40 or more hours per week however, expenditures dropped an average of $1.87

per customer at the PYO operations and $2.03 per customer at the fruit stands. Purchases also typically decreased when both partners were either retired or one partner work less than 40 hours per week. However expenditures at PYO operations actually increased from $8.95 to $10.89 per customer when both partners worked less than 40 hours per week and increased from $9.64 to $9.90 per customer when both partners were retired.

Table 15. Average Customer Expenditures Compared to Customer Ages

Customer Age	All Customers	PYO Customers	Pre-Pick Customers
	Average Expenditures		
18 – 24 Years	$11.44	$12.68	$ 9.36
25 – 44 Years	$10.43	$ 9.62	$11.43
45 – 54 Years	$11.34	$11.21	$11.20
55 – 64 Years	$10.65	$11.17	$ 9.89
65 Years or Older	$ 8.69	$ 8.82	$ 8.51

Predictably, the majority of the PYO customers stayed at the farm longer **(Table 17)**. While about a third of the pickers took less than 15 minutes to pick their strawberries and checkout, slightly more than 19 percent of the consumers needed between 46 and 60 minutes to complete their transactions and almost 13 percent stayed longer than an hour. Also not surprisingly, the PYO customers who picked longer typically spent more money **(Table 18)**. The average amount PYO customers spent gradually increased from an average of $7.52 for those who stayed less than 15 minutes to $17.00 for those individuals who stayed longer than an hour. The only exception to this trend was the consumers who stayed between 31 and 45 minutes who spent an average of $8.53 per customer, which was the second lowest expenditure.

Table 16. Average Customer Expenditures Compared to the Number of Hours Adults in the Household Work

Hours Worked by the Adults in the Household	All Customers	PYO Customers	Pre-Pick Customers
	Average Expenditures		
Working 40 or More Hours per Week:			
1 Adult	$ 9.59	$ 9.51	$ 9.55
2 Adults	$11.54	$11.38	$11.58
Working Less Than 40 Hours per Week:			
1 Adult	$ 9.05	$ 8.95	$ 9.03
2 Adults	$ 9.86	$10.89	$ 8.83
Retired:			
1 Adult	$ 9.76	$ 9.64	$ 9.67
2 Adults	$ 9.19	$ 9.90	$ 8.45

*Some respondents both picked their own and purchased pre-picked strawberries.

Over 90 percent of the customers who made purchases at the

Table 17. The Amount of Time Customers Spent at the Strawberry Operation

Minutes Spent	PYO Customers	Pre-Pick Customers
	Percent	*Percent*
Less Than 15	33.8	90.2
15 – 30	18.3	6.6
31 – 45	16.1	1.1
46 – 60	19.1	0.6
More Than 60	12.7	1.5

fruit stands completed their transactions within 15 minutes while 6.6 percent of the shoppers took between 15 to 30 minutes to make their purchases. It is interesting to note that most of the customers who were recorded as "staying" longer than 30 minutes at the fruit stand, initially started picking strawberries at the PYO operation. These individuals grew tired of picking and decided to buy pre-pick strawberries to get the volume of fruit they wanted. While the customers who stayed at the fruit stands longer than 30 minutes spent more money, they only accounted for 3.2 percent of the total shoppers. Individuals, who finished their purchases within 15 minutes, spent an average of $9.78 while those who stayed between 15 and 30 minutes spent an average of $9.52 and customers who stayed longer than 30 minutes spent at least $10.36.

Table 18. Average Expenditures Compared to the Amount of Time Customers Spent at the Strawberry Operation

Minutes Spent at the Operation	PYO Customers	Pre-Pick Customers
	Average Expenditures	
Less Than 15	$ 7.52	$ 9.78
15 – 30	$ 9.67	$ 9.52
31 – 45	$ 8.53	$13.07
46 – 60	$12.44	$10.36
More Than 60	$17.00	$16.13

Advertising Effectiveness and Factors Influencing Selection of Direct Market Strawberry Outlets

When asked what prompted their visit to the direct market outlet where they were interviewed, less than 23 percent of the respondents said that advertising influenced their shopping decision while over 77 percent indicated that their decision was not influenced by any type of advertisement. In fact, two-thirds of all the consumers were repeat customers while a third of the respondents were visiting the operation for the first time **(Table 19)**. Almost 40 percent of the PYO consumers said they were visiting the farm for the first time and about 60 percent were repeat customers. In contrast, about 27 percent of the pre-pick buyers were visiting the fruit stand for the first time and over 73 percent were repeat customers.

Customers whose visit was not motivated by an advertisement were presented a list of possible reasons for selecting a direct marketing outlet and asked to select the primary reason that influenced their decision to stop at the operation. Convenient location was chosen by 41.4 percent of the PYO customers as the most important reason while referrals by family members or friends was second with 19.6 percent and fruit quality was third with 14.5 percent **(Table 20)**. Pre-pick customers also picked convenient location as their number one reason for choosing the fruit stand, but fruit quality was second, chosen by 17.2 percent of the consumers, and referrals was picked by 13.1 percent. Customers who just happened to be driving and decided

Table 19. First-Time Customers Compared to Repeat Customers

Customer's First Trip to this Strawberry Operation?	All Customers	PYO Customers	Pre-Pick Customers
	Percent	*Percent*	*Percent*
First-time	33.0	39.6	26.9
Repeat	67.0	60.4	73.1

to stop was accounted for 10.8 percent of these respondents. Only 7.4 percent of the pre-pick customers and 2.5 percent of the PYO customers indicated that they decided to visit the direct market operation for the farm experience. In addition, only 2.5 percent of the PYO respondents indicated that the trip to the farm was a family outing.

First-time PYO customers, who were not persuaded by an advertisement, said that the farm's convenient location was the primary reason that influenced their decision about where to pick strawberries and a referral from a family member of friend was ranked as the second most important factor **(Table 21)**. Convenient location was also the most significant factor that influenced repeat PYO customers' decision to return to the same operation, more than doubling the percentage of buyers who listed fruit quality which was the second most important reason. Convenient location was also the major reason that influenced pre-pick customers to visit the fruit stands. Over 36 percent of the first-time consumers and over 39 percent of the repeat customers listed this factor as the main reason for selecting a fruit stand **(Table 22)**. In addition, 19 percent of the first-time customers just happened to drive by the fruit stand and decided to stop while 18.3 percent selected the fruit stand based on a referral from family members or friends. The second most significant factor for repeat pre-pick customers was the quality of the strawberries with 19.2 percent of the respondents, followed by referrals with 11.4 percent.

Table 20. Reasons Customers Whose Visit Was Not Prompted by an Advertisement Came to the Strawberry Operation

Reason	All Customers	PYO Customers	Pre-Pick Customers
	Percent	*Percent*	*Percent*
Convenient Location	40.2	41.4	38.8
Referral by Friend	16.1	19.6	13.1
Strawberry Quality	15.9	14.5	17.2
Drove By & Decided to Stop	7.6	4.1	10.8
Farm Experience	5.1	2.5	7.4
Family Outing	1.4	2.5	0.6
Strawberry Variety/Selection	0.9	0.5	1.1
Low Prices	0.2	0.0	0.3
Buy large volume of Fruit	0.2	0.2	0.2
Exercise	0.0	0.0	0.0
Other	12.4	14.7	10.5

Table 21. Primary Reasons First-Time Customers Decided to Shop at the Strawberry Operation Compared to Repeat Customers, PYO Customers*

Reason for Shopping	**First-time Customers**		**Repeat Customers**	
	Rank	*(Percent)*	*Rank*	*(Percent)*
Convenient Location	1	34.0	1	45.6
Referral by Friend	2	28.7	3	15.1
Strawberry Quality	3	11.2	2	16.4
Drove by & Decided to Stop	4	1.8	4	3.8
Family Outing	5	2.7	6	2.2
Farm Experience	6	2.1	5	2.4
Strawberry Variety/Selection	--	0.0	7	0.8
Low Prices	--	0.0	--	0.0
Exercise	--	0.0	--	0.0
Buy Large Volume of Fruit	--	0.0	8	0.3
Other	N/A	19.5	N/A	13.4

* *This question was only asked to those customers who indicated they were not prompted to visit the location by an advertisement.*

Of the 379 customers who were swayed by a specific advertisement, 208, or 12 percent of the respondents, said that the specific ad for the direct market outlet was posted on either a sign or billboard **(Table 23).** Newspaper advertisements had the second largest impact with a 5.0 percent response rate while direct mailers were a distant third with 1.0 percent. Newspaper inserts, radio commercials, and commercial television advertisements each recorded a response rate of less than 0.5 percent. Only two people referred to a cable TV advisement and two individuals located the direct market operation through the Internet. Yellow page advertisements or the PYO directory published by the strawberry association and

Table 22. Primary Reasons First-Time Customers Decided to Shop at the Strawberry Operation Compared to Repeat Customers, Pre-Pick Customers*

Reason for Shopping	**First-time Customers**		**Repeat Customers**	
	Rank	*(Percent)*	*Rank*	*(Percent)*
Convenient Location	1	36.6	1	39.3
Drove by & Decided to Stop	2	19.0	5	8.4
Referral by Friend	3	18.3	3	11.4
Strawberry Quality	4	10.5	2	19.2
Farm Experience	5	2.6	4	9.0
Strawberry Variety/Selection	6	0.7	6	1.2
Family Outing	6	0.7	7	0.6
Low Prices	--	0.0	8	0.4
Exercise	--	0.0	--	0.0
Buy Large Volume of Fruit	--	0.0	9	0.2
Other	N/A	11.6	N/A	10.3

* *This question was only asked to those customers who indicated they were not prompted to visit the location by an advertisement.*

NCDA&CS were not mentioned by any of the consumers.

When asked what information in the advertisement attracted them to the strawberry operation, 62.4 percent of all the customers who responded to an ad said that the phrase “fresh strawberries” caught their attention and 33 percent said that information about the location of the farm affected their decision **(Table 24)**. Information about strawberry prices, redeemable coupons and information about the hours of operation each persuaded less than 1.0 percent of the respondents to visit a specific direct market outlet.

Table 23. Customer Response Rate by Type of Advertisement

Type of Advertisement	Customers Who Responded to an Advertisement
	(Number)
Sign or Billboard	208
Newspaper Advertisement	82
Direct Mailer [1]	21
Newspaper Insert	7
Radio Commercial	5
Commercial TV Ad	3
Cable TV Advertisement	2
Internet	2
Yellow Pages Advertisement	0
PYO Directory	0
Other	36

[1] *Brochure, Flyer, or Postcard*

Customers who were not influenced by an ad were asked if they could remember seeing any advertisement within the last month promoting the direct market outlet where they were interviewed. Over 51 percent of the customers could recall at least one advertisement promoting the business while less than 49 percent could not remember a specific ad **(Table 25)**. About half of the individuals who could recall an advertisement remembered an ad that was posted on a sign or billboard. Newspaper ads had the second highest recall rate, newspaper inserts were a distant third, commercial television advertisements and the direct mailers tied for fourth and cable TV ads ranked fifth.

Table 24. Information in the Advertisement that Attracted Customers to the Strawberry Operation

Information in the Advertisement	All Customers	PYO Customers	Pre-Pick Customers
	Percent	*Percent*	*Percent*
Fresh Strawberries	62.4	62.3	63.6
Farm Location	33.0	34.3	29.0
Strawberry Prices/Sale	0.6	0.4	0.9
Coupons	0.6	0.0	1.9
Hours of Operation	0.3	0.0	0.9
Other	3.1	3.0	3.7

Note: *Based on the number of customers who responded to an advertisement.*

Table 25. Customers' Ability to recall any of the Strawberry Operation's Advertisements That Were Run During the Previous Thirty Days

Customer Could Recall Any of the Advertisements:	All Customers	PYO Customers	Pre-Pick Customers
	Percent	*Percent*	*Percent*
Yes	51.5	54.0	49.0
No	48.5	46.0	51.0
Types of Advertisements the Customers Recalled	**Number Responses**		
Sign or Billboard	525	282	230
Newspaper Advertisement	330	162	159
Newspaper Insert	27	13	13
Direct Mailer (Brochure, Flyer, or Postcard)	8	16	7
Commercial TV Ad	8	4	3
Cable TV Advertisement	5	5	0
Radio Commercial	3	1	8
Yellow Pages Advertisement	2	1	1
Internet	1	1	0
Association or NCDA&CS PYO Directory	0	0	0
Other	29	12	7

Notes: *Customer responses whose visit to the strawberry operation was not prompted by an advertisement. Customers were allowed to select all the types of advertisements they could recall.*

Since direct market operators frequently use radio advertisements to promote their business, another objective of this survey was to determine the types of radio stations listened to by their customers. Overall, the three most popular types of radio stations were country, oldies or soft rock, and religious stations which were listened to by 22.0, 18.2, and 14.7 percent, respectively, of the surveyed customers **(Table 26)**. Almost 9 percent of the customers reported listening to national public radio most of the time, while 8.4 percent said that they never listen to the radio. Classic rock radio stations attracted 7.3 percent of the respondents and talk radio and contemporary radio stations each accounted for 6.7 percent.

Table 26. Types of Radio Stations Most Frequently listened to by the Strawberry Customers

Types of Radio Station	All Customers	PYO Customers	Pre-Pick Customers
	Percent	*Percent*	*Percent*
Country	22.0	20.3	24.1
Oldies & Soft Rock	18.2	16.2	20.5
Religious	14.7	15.7	13.4
Public Radio (NPR)	8.9	9.4	8.5
None	8.4	8.3	8.5
Classic Rock	7.3	8.8	5.5
Talk Radio	6.7	6.5	6.8
Contemporary	6.7	7.4	5.8
Classical	4.9	4.6	5.3
Other types of stations	2.3	2.8	1.6

On average, PYO consumers who responded to an ad spent $0.50 more per customer with a larger percentage spending more than $10.00 compared to those who were not influenced by an advertisement **(Table 27).** Exit interviews also revealed that although a larger percentage of pre-pick customers who responded to an ad spent between $1.00 and $10.00, on average these consumers spent $0.70 more than those who were not swayed by advertisements **(Table 28).**

Table 27. Amounts Spent by PYO Customers Whose Visit Was Prompted by an Advertisement Compared to Customers Whose Visit Was Not Prompted by an Advertisement

Amount Spent	Advertisement Prompted Customer's Visit	Advertisement Did Not Prompt Customer's Visit
	Percent	*Percent*
$0	0.0	0.0
$1 - $10	64.5	67.8
$11 - $20	26.7	23.6
$21 - $30	6.8	5.8
$31 - $50	0.4	2.3
Over $50	1.6	0.5
Average Amount	$10.60	$10.10

Table 28. Amounts Spent by Pre-Pick Customers Whose Visit Was Prompted by an Advertisement Compared to Customers Whose Visit Was Not Prompted by an Advertisement

Amount Spent	Advertisement Prompted Customer's Visit	Advertisement Did Not Prompt Customer's Visit
	Percent	*Percent*
$0	0.0	0.0
$1 - $10	76.3	75.0
$11 - $20	13.6	17.1
$21 - $30	5.9	4.9
$31 - $50	1.7	2.0
Over $50	2.5	1.0
Average Amount	$10.60	$9.90

Peak Traffic Days

While determining the peak consumer traffic periods was not an objective of this study, the total number of completed surveys per day was directly related to the volume of customer traffic and gives some insight into the busiest days of operation. For PYO operations, Friday barely "edged out" Saturday as the busiest day of the week with 24.3 percent of the total respondents compared to 24.1 percent; so in reality, there was very little difference between these two days **(Table 29).** The shopping pattern for the pre-pick operations, on the other hand, followed a "typical" commercial supermarket-shopping pattern for strawberries. That is, sales "build up" Wednesday and Thursday, peak on Friday, "drop off" on Saturday, and "bottom out" on Monday and Tuesday **(Table 30)**.

Table 29. Day the PYO Customers Completed the Survey

Location	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
#1	7	5	2	2	9	1	26
#2	0	7	7	0	19	3	36
#3	13	27	55	42	27	2	166
#4	6	5	7	7	15	34	74
#5	24	9	17	27	21	47	145
#6	22	15	10	0	0	49	96
#7	0	23	17	25	70	2	137
#8	15	22	8	11	45	66	167
Total	87	113	123	114	206	204	847
Percent	10.3%	13.3%	14.5%	13.5%	24.3%	24.1%	100%

Table 30. Day the Pre-Pick Customers Completed the Survey

Location	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
#1	27	24	19	26	61	53	210
#2	0	0	12	0	42	18	72
#3	15	16	32	55	19	0	137
#4	8	7	12	14	22	28	91
#5	2	2	2	2	2	2	10
#6	5	0	0	0	0	3	8
#7	24	34	3	66	0	0	127
#8	7	6	27	14	60	31	145
Total	88	89	107	177	206	135	800
Percent	11.0%	11.1%	13.3%	22.1%	25.7%	16.8%	100%

Summary and Recommendations

This study identified consumer demographic characteristics, attributes customers look for when selecting PYO and pre-pick direct market strawberry outlets, average expenditures per customer, typical driving distances to direct market strawberry operations, how long it takes customers to either pick or buy pre-picked berries, and the effectiveness of advertising. This study identified different "average" consumers for each type of direct market outlet. In general, PYO customers tended to have lower family incomes but more time available to pick strawberries compared to the pre-pick consumers who tended to have higher incomes and less available time. Middle age, middle-income customers living within ten miles of the farm comprised the largest percentage of customers surveyed at the PYO operations; however customers with lower household incomes generally accounted for the largest average expenditures. Middle age, high-income individuals who also live within ten miles of the fruit stand were the largest group of respondents at the pre-pick operations whereas customers with household incomes greater than $60,000 typically accounted for the greatest expenditures.

There was a significant decease in average expenditures at PYO operations if the customer was 65 years old or older. However, retirees or semi-retirees should not be ignored as PYO customers. While the average expenditures of these individuals decreased at the fruit stands, the average amounts they spend at PYO operations actually increased after both the husband and wife either retired or worked less than 40 hours per week. Females also seem to play a major role in purchase decisions since they were a part of over 75 percent of the shopping parties interviewed in this study, visiting the direct market either by themselves or with a friend or family member. The initial site selected for the direct market operation can have a long-term effect on the success, or failure, of the business. Therefore, growers should locate within ten miles to population areas that closely resemble the demographic characteristics of consumers identified in this study whenever possible. Managers should also monitor the demographic changes within their market areas so they can adjust their operations to meet their customers' changing requirements.

Overall, convenient location was easily the major factor that influenced consumers' decisions to patronize a specific direct market outlet. Results of this study also indicate that a personal referral was the second most important reason that impacted first-time customers' decision to select a PYO operation. Impulse buying, on the other hand, was the second most important reason cited by new customers when asked why they chose the fruit-stand where they were interviewed. That is, customers happened to be driving by a fruit stand, found the operation attractive, and decided to stop. This high percentage of impulse buyers reinforces the importance for fruit stand operators to select a convenient location for their business and to use good signage to attract customers businesses. It also supports the notion that managers should be sensitive to how their fruit stand is viewed by the public. Other research has shown that clean, neat fruit stands with ample parking, safe entries and exits off of and onto the highway and attractive fruit displays help persuade customers to stop at these business.

Since “word-of-mouth” or personal referrals are so important in attracting new consumers, direct market operators who satisfy their present customer’s expectations in terms of fruit quality, fruit size, and service have a comparative advantage in attracting new customers. Satisfied customers give positive referrals if they are pleased with the product and service. Conversely, customers who have purchased inferior fruit or receive poor service typically share their negative experiences with an even greater number of people.

Customers, whose shopping trip was prompted by an advertisement, said that the phrase “fresh strawberries” or the information about the location of the farm in the advertisement attracted them to the direct market operation. Managers should highlight this information in any print and radio advertisements and ensure that this information is easily visible in their signage. Emphasizing the availability of fresh pre-picked strawberries may be beneficial because some potential customers may not realize that local strawberry producers also operate a fruit stand. Managers in medium and large market areas who use radio advertisements will probably have to select from a number of different stations. In this study, the customers listed numerous different types of radio stations that they listened to on a regular basis. In addition, the top radio station was only listened to by 22 percent of the customers compared to the local newspaper which was subscribed to by over 87 percent of the shoppers. While there is no guarantee that any form of advertisement will be effective, other consumer studies have found that retail managers who repeatedly focused their media ads on a simple, specific message, such as convenient location and freshness, recorded the highest response rates.

PYO customers who stayed longer than 45 minutes spent significantly more than the pickers who stayed less than 45 minutes. This finding does not mean that every customer should be encouraged to stay longer in hopes that they will spend more money. However, it does suggest that managers should be prepared to accommodate consumers who need extra time to pick their strawberries.

northcarolina
Strawberries