



The impact of “Florida” on Consumers’ Willingness-to-Pay for OJ

Dr. Lisa House

Dr. Yan Heng

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Overview

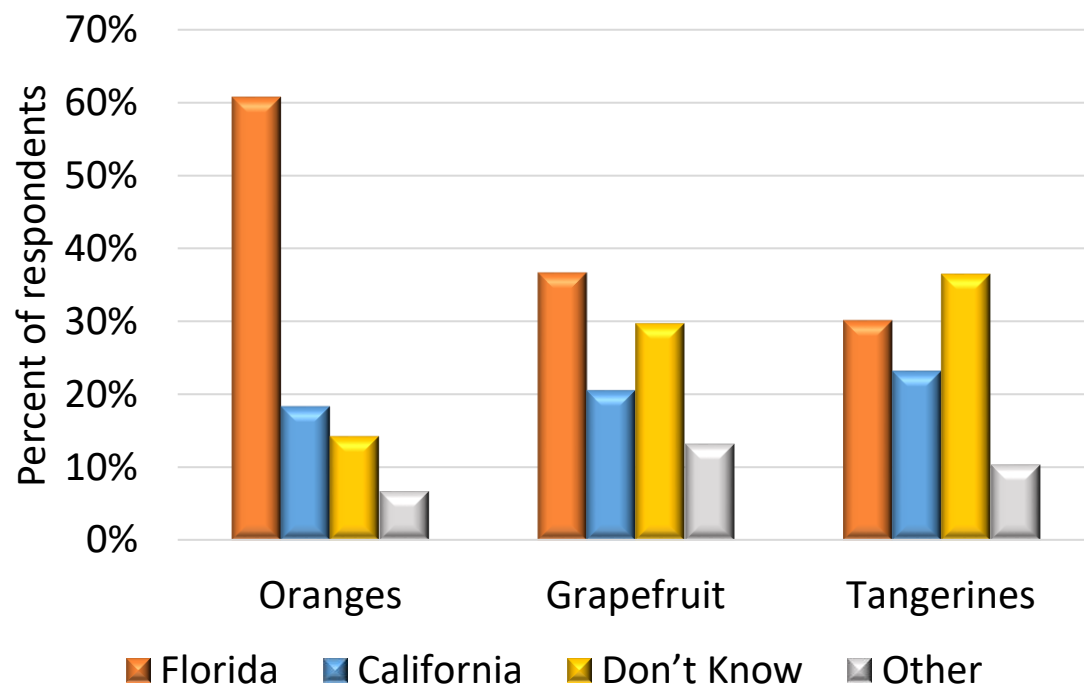
- Prior research shows value placed by consumers on citrus from Florida
- Data from the OJ tracker can be used to see relationships between those that value Florida and willingness to pay
- Further research was conducted to specifically look at how “Florida” influences WTP



Florida is seen as the leader in citrus by consumers

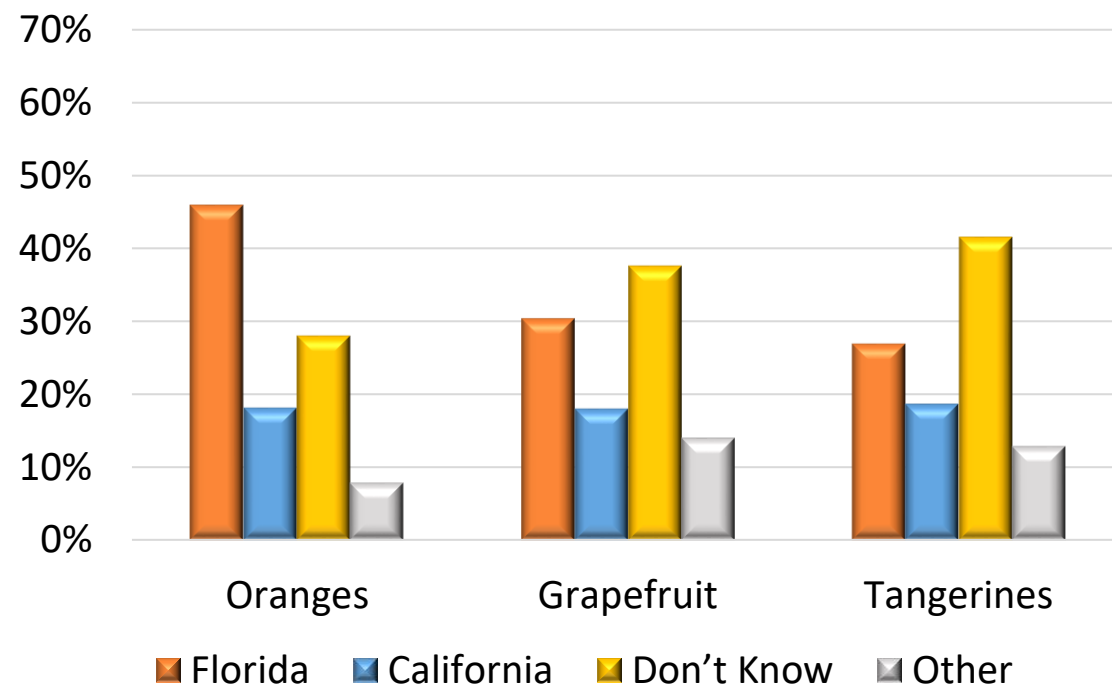
- 1,500 respondents were surveyed in February, 2014

Quality Perception of Citrus



Q8.4 In your opinion, which place produces the HIGHEST QUALITY:

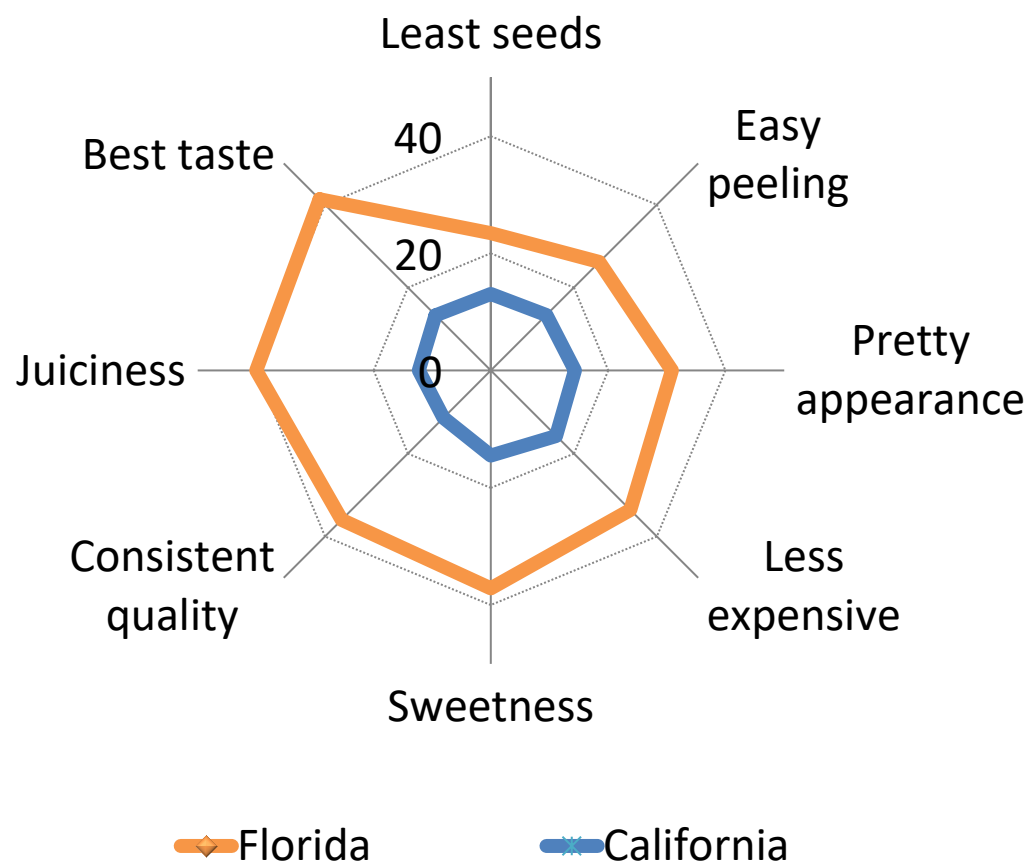
Value Perception of Citrus



Q8.5 In your opinion, which place offers the BEST QUALITY for the PRICE:



“Florida” is associated with quality citrus



- The lines indicated average percentages of participants who selected ‘much stronger’ or ‘stronger’ for each attribute

Q8.6 Which state's citrus fruit do you associate with these characteristics:



Willingness to Pay



Economists and market researchers study willingness to pay, often when market data is not available, or we want to control for outside influences



Multiple methods used to gather data



Most research is hypothetical (people are asked what they will pay, they aren't then forced to pay that amount as if they were in a store purchasing an item)



Allows us to look at the impact of different attributes or things that don't exist in the market



Price Sensitivity Analysis

- **Methodology**

- Questions measuring consumers price perceptions have been included in our OJ tracker since 2016
- We have also asked many of these questions in prior surveys to compare to dates before 2016
- Price Sensitivity Meter (PSM) developed by Van Westendorp (1976) consisted of four questions asking levels of product prices

At what price would you consider a typical 59 oz. carton/container of refrigerated not-from-concentrate 100% orange juice to be:

So expensive that you would not consider buying it (Too expensive)	\$
Priced so low that you would not consider buying it (Too cheap)	\$
Starting to get expensive, but you would have to give some thought to buying it (Expensive)	\$
A bargain, a great buy for the money (Cheap)	\$

- Cumulative frequency distributions are used to analyze collected data



Van Westendorp Analysis

	Definition	Empirical interpretation
Median Price (Indifference price point)	An equal number of people experience a product as cheap or as expensive	Median price paid by consumers in the market
Maximize sales (Optimal price point)	An equal number of people believe a product is too-cheap or too-expensive	Maximum number of people who would consider the offering
Lower bound price range (Point of marginal cheapness)	The number of people that experience a product as too-cheap is larger than those that see it as cheap	The vast majority of all competitive offerings in a mature market
Upper bound price range (Point of marginal expensiveness)	The number of people that experience a product as too-expensive is larger than those that see it as expensive	



Van Westendorp Results

	2010 N=1,311	2015 N=527	2016 N=2,216	2017 N=4,346	2018 N=4,544	2019 N=4,862	2020 N=4,370
Lower bound	2.00	1.99	2.01	2.01	2.05	2.01	2.01
Upper bound	4.99	4.99	4.99	4.99	4.99	5.01	5.09
Median price	3.51	3.05	3.30	3.45	3.55	3.80	3.99
Maximize sales	3.00	2.99	3.01	3.01	3.24	3.49	3.49

- Over time, range holds mostly steady
- Median price and maximize sales price increased in last few years



Van Westendorp Results

	2010 N=1,311	2015-20 N=21,175	Aware of promotions N=4,097	Aware of Florida in promotions N=2,491	Saw Florida in promotion or at store N=6,566	Prefer Florida N=10,491
Lower bound	2.00	2.01	2.01	2.28	2.40	2.04
Upper bound	4.99	4.99	4.99	5.08	5.01	4.99
Median price	3.51	3.51	3.76	3.99	3.99	3.60
Maximize sales	3.00	3.24	3.70	3.98	3.99	3.49

- People who notice Florida in promotions and/or at the store are willing to pay more
- Aware of promotions = During the past 30 days, do you recall hearing or seeing any mention of promotion, or advertisement for 100% OJ (OBEG3)
- Aware of Florida in promotions = Do you recall seeing, reading or hearing anything about Florida OJ in the past 30 days? (QMDA5)
- Prefer Florida = Please indicate where you prefer the oranges used in 100% Orange Juice to come from? Florida is selected (QOJ2)



Willingness to Pay for OJ Labeled with “Florida”

- To examine willingness to pay in more detail, specific study was conducted June 2020
- n=1,495 participants in online survey
- Survey designed specifically to investigate the relationship between having Florida on a label and willingness to pay, as well as demographics
 - Uses the tracker to inform survey design



Discrete Choice Experiments

- Idea is to mimic the purchase process
- Give respondents a choice between different products (with differing attributes), and sometimes a no purchase option
- Researcher can predict the probability that a person will choose an alternative, but not the alternative the person will choose



100% ORANGE JUICE
\$ 3.99
100% from Florida
Product of USA



100% ORANGE JUICE
\$ 2.99
Bottled in Florida



I wouldn't purchase
either product





Choice Experiment to examine origin of OJ

- Respondents selected between OJ with different attributes:
 - Price levels (\$2.99/carton, \$3.99/carton, \$4.99/carton)
 - Information on Florida (100% from Florida, At least 50% from Florida, Bottled in Florida, Not labeled)
 - Information on origin (Produced in the US or no information)
- Respondents see multiple sets of comparisons and select their preferred OJ or to not purchase



Choice Experiments



100% ORANGE JUICE
\$ 2.99
At least 50% from Florida
Product of USA



100% ORANGE JUICE
\$ 4.99
100% from Florida
Product of USA



I wouldn't purchase
either product





Choice Experiments

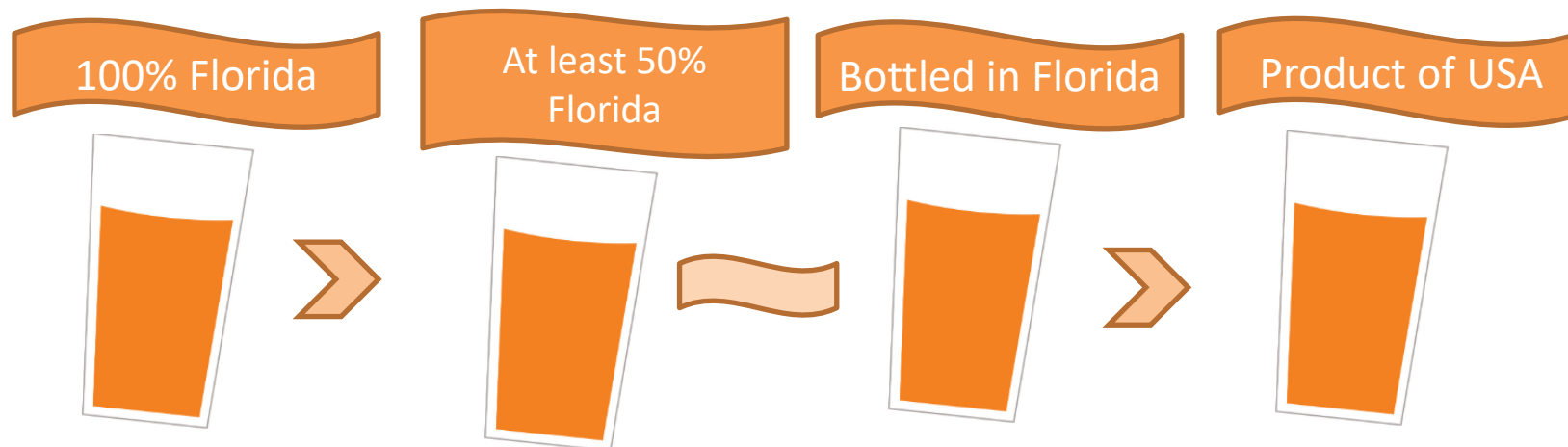
- Each respondent saw 13 sets of choices:

100% OJ Choice A			100% OJ Choice B			No purchase
Price	FL-info	USA Label	Price	FL-info	USA Label	
\$ 4.99	At least 50% FL	No label	\$ 3.99	Bottled in FL	No label	
\$ 2.99	No label	No label	\$ 4.99	Bottled in FL	No label	
\$ 3.99	No label	No label	\$ 4.99	100% FL	Product of USA	
\$ 2.99	50%FL	Product of USA	\$ 4.99	100% FL	Product of USA	
\$ 2.99	Bottled in FL	No label	\$ 3.99	100% FL	No label	
\$ 3.99	100% FL	Product of USA	\$ 2.99	Bottled in FL	No label	
\$ 2.99	No label	Product of USA	\$ 3.99	At least 50% FL	Product of USA	
\$ 4.99	No label	Product of USA	\$ 2.99	100% FL	No label	
\$ 3.99	At least 50%FL	No label	\$ 2.99	No label	No label	
\$ 4.99	Bottled in FL	No label	\$ 2.99	No label	Product of USA	
\$ 2.99	100% FL	No label	\$ 2.99	At least 50% FL	Product of USA	
\$ 3.99	Bottled in FL	No label	\$ 4.99	At least 50% FL	No label	
\$ 4.99	100% FL	Product of USA	\$ 3.99	No label	No label	



Willingness-to-Pay

- Econometric analysis used to estimate willingness to pay compared to base (i.e. no information about Florida and no USA label)
- 100% FL: \$4.29/carton CI (3.77,5.01)
- At least 50% FL: \$1.24/carton CI (0.91,1.63)
- Bottled from FL: \$1.01/carton CI (0.56, 1.46)
- USA product: not significant, CI (-0.22, 0.43)





Relationship between WTP and demographics

- We can also examine how demographics interact with WTP
- Bolded values are statistically significant and can be read as change in willingness to pay compared to based category

Coefficients	100% FL	50% FL	Bottled FL	USA
Female	-0.27	-0.46	-0.77	-0.34
Monthly Shopper	0.82	0.66	1.17	0.79
Aware	0.11	0.07	0.13	0.10
Increased consumption in past year	0.54	0.37	0.68	0.50
Decreased consumption	0.40	0.31	0.55	0.38
Good Perception	0.60	0.47	0.83	0.57
FL Preference	0.88	-0.08	0.01	0.60
Intercept	-0.99	1.75	0.97	-3.56
Age	-0.07	-0.06	-0.11	-0.07
Income	0.00	0.00	0.00	0.00
Degree	0.22	0.18	0.33	0.22
White	0.56	-0.10	-0.08	0.37
Weekly Shopper	0.47	0.23	0.44	0.40



Factors Influencing WTP

- Consumers who are younger, male, and shopped for OJ monthly are willing to pay more for OJ with any Florida label
- Awareness of promotions drives demand (those aware of promotions are more likely to purchase OJ – ROI study),
 - For WTP, general awareness of promotions doesn't influence willingness to pay to Florida-labeled OJ differently than no label
- Having a positive perception of OJ increases willingness to pay for OJ associated with Florida



Summary

- Multiple studies point to the value consumers place on “Florida” citrus
- WTP for OJ in general has been relatively steady over 10 years, but higher for those that are aware of Florida in promotions and/or at the store and aware of promotion in general
- WTP for OJ with Florida as an attribute is higher for those that purchase monthly, have increased their consumption in the past year, and strongly agree with good attributes of OJ
- Although labeling OJ with 100% Florida shows the highest WTP in this study, having any Florida content would increase willingness to pay
- The “brand” image of Florida is strong and has a broad reach from OJ to fresh citrus